NOVASTOR
WWW.NOVASTOR.COM

NovaBACKUP xSP®

Instruction Manual

NovaStor / November 2010

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Index

About NovaBACKUP xSP 3

How this manual is organized: 5
Storage Server 5
Remote Manager 5
The Commerce Server 5
Application Update Server 5
The Remote Manager ACS Config.exe .....
The NovaBACKUP xSP Product Builder 5
Client Module 6
Web Based Restore 6

Installing NovaBACKUP xSP Storage Server 7

Minimum System Requirements 8
Installation 8

NovaBACKUP xSP Storage Server Configuration Manager 15

Starting up the Configuration Manager 15
Accounts 17
General Tab 27
Security Tab 28
A word about the master decryption key: 29

Installing NovaBACKUP xSP Remote Manager 38

NovaBACKUP xSP Remote Manager 47

Remote Manager ACS Configuration Utility .....

Creating New Accounts, Modifying Existing Accounts (Remote Manager ACSConfig.exe) .....
Starting Remote Manager Account Creation Settings: .....

Commerce Server Installation and Upgrade 71

System Requirements 72
Upgrading from a previous version 72
Installing Commerce Server 72

NovaBACKUP xSP Commerce Server 83

The Commerce Server User Interface 85
Tab Functionality 86
Sneak Peak URL Builder 86
Account Tab 87
Catalog Tab 88
Create a new product 90
General Tab 92
Payment Methods Tab 93
PayPal Tab 94
Newsletter Tab 94
Reports Tab 95

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Advanced Tab 96
Content Tab 100
Database Tab 101

NovaBACKUP xSP Application Update Server 102

Installing the NovaBACKUP xSP Application Update Server 102
Using NovaBACKUP xSP Application Update Server 108

NovaBACKUP xSP Product Builder 112

Status 113
General 114
Languages 115
Graphics 115
Code Signature 116
Setup 116
Help 116
Comments 117
Sending your Client Application Settings to NovaStor 117
About Timing Out 118
Distributing your client application 119

NovaBACKUP xSP Client Module – Backup Software 119

Configure Device 121
Security 123
Advanced 124
Staging 125
Importing the Stage Backup to the Server 127
How to change the online device settings 128
Running an online backup 130
A word on the simple view mode 132

Web Based Restore 133

Installing Web Based Restore 134
Customer Use of Web Based Restore 135

APPENDIX 136

NovaBACKUP xSP Remote Settings: 136
Commonly used Terms 138
Contacting Technical Support 139

About NovaBACKUP xSP

NovaBACKUP xSP is a complete data protection system. NovaBACKUP xSP allows you to provide your clients with automatic local and offsite backup, plus image based local disaster recovery, through a single, simple SaaS interface that can be customized and rebranded.

- NovaBACKUP xSP comes with rebranded interface, central management functions and comprehensive automation requiring little administrative effort.
- NovaBACKUP xSP allows your customers to manage local backups, offsite backups and disaster recovery images from the same interface.
- NovaBACKUP xSP is device and location independent.
- An innovative seed licensing program helps you gain new customers and reduce your customer acquisition cost.
- Simple licensing eliminates additional costs for SQL/Exchange agents, etc.
- Web based restore allows your clients to access their data anywhere they have an Internet connection.
- NovaBACKUP xSP's Commerce server, included with NovaBACKUP xSP, simplifies and automates the creation of accounts, eases the sign-up of new users, and allows you to track the payment and usage of customers. NovaBACKUP xSP also allows you to generate status messages when a customer's backup is at or near quota. Automated E-Mail messages to customers can be set up for greeting on signup and for reminders about trials expiring, and can be set up for other events.
- NovaBACKUP xSP also features a Product Builder application that enables you to specify the IP address of the Storage Server, and also enabling you to customize many features of the backup client. In NovaBACKUP xSP Product Builder, you can provide your own graphics, help, and other files, and can thus create a very highly customized client application.

NovaBACKUP xSP stores settings and data directly into the SQL database. The data items that are stored in SQL provide the flexibility to create specific reports for end users, accounting, and management by having all the data clearly available in a SQL database.

The NovaBACKUP xSP client software is based on NovaStor's award winning NovaBACKUP software. This is a valuable, user friendly package that simplifies your customers' backup operations. These operations can include making a full image of the computer onto which the software is installed, backing up a single file or folder, backing up the system state of the computer, backing up a Microsoft SQL or Exchange Server, or simply scheduling a copy of some files to another machine. Plus, unlike most other purely Online Backup software, file copies or even complete backup images can be made onto local devices such as USB drives, CD/DVD/BD, tape, NAS devices, or to a local hard drive.

Before data is transferred to your Storage Server, it is encrypted and compressed, allowing safe, compact data transfers over the Internet or through your company's internal networks. The data is then stored in a proprietary compressed and encrypted format on the storage server.

NovaBACKUP xSP uses FastBIT™ technology. FastBIT™ transfers changed data only. Backups made using NovaBACKUP xSP are up to 99% faster than backups using block level technology.

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File encryption and compression are standard features in NovaBACKUP xSP. The combination of FastBIT™ and compression result in high speed backup. Encryption enables secure backup.
For customers with large amounts of data to back up, NovaBACKUP xSP provides the ability to 'Stage' the backup data, recording an encrypted version of the data onto media that can be delivered to the Storage Server for transfer onto the client's backup directory. For example, a customer may want to back up 1 TB of data. This would take days or longer over the Internet. Staging the data onto an external hard drive, and delivering the drive to you, for installation on the client's directory on your Storage Server can save a tremendous amount of time.

Many of the NovaBACKUP xSP functions can be managed remotely, over the Internet or an internal network, providing powerful administrative controls – whether you are at your office, or in a remote location with Internet access.

To see the definitions of our commonly used terms, like FastBIT™, please look in the Appendix on page 130.

How this manual is organized:

This manual explores and explains NovaBACKUP xSP in the order in which the components are installed:

Storage Server (also sometimes referred to as Backup Server) is the module that manages the storage of subscriber data. The Storage Server is where the user data is sent from the client software, and from which the files can be restored. All storage manipulation, such as the retention period of the data for a user, is done on the Storage Server.

This section will explore installation, configuration and use of NovaBACKUP xSP Storage Server.

Remote Manager allows you to perform remote management of many of the tasks that are done locally within the Storage Server Configuration Manager. Remote Manager is very rich in features, and enables you to manage multiple Storage Servers.
An account creation module in this manual discusses the steps required to create new users and new user accounts.

The Remote Manager section explores installation, configuration and use of the NovaBACKUP xSP Remote Manager, and delves into account creation.

The Commerce Server is used to support your efforts to develop a commercial, subscription-driven, offsite backup business. Powerful tools enable you to configure the many parameters of customer accounts. The SQL Engine on which NovaBACKUP xSP Commerce Server is run can also prepare numerous reports of account activity, enabling you to quickly and easily assess the status of your business.

In these pages, we discuss installing the Commerce Server, and configuring the Commerce Server to support multiple accounts, and perform a wide range of functions.

Application Update Server

The Application Updater is a module that can be used to receive update requests from users and provide the updates available to that user or group of users.

The NovaBACKUP xSP Product Builder allows you to create a custom version of NovaBACKUP that you can distribute to your customers as part of the service. The Product Builder provides impressive flexibility, allowing you to use your own graphics to make the product look like one you developed modify existing documentation or provide your own, and it allows you to pre-configure the settings required to reach your Storage Server.

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Depending on your NovaBACKUP xSP subscription, you may be able to design and distribute multiple different versions of the Client application, which are targeted to specific groups of users. Additionally, NovaStor offers packages that will allow your business to be on its approved list of online backup providers that is included in the commercial versions of NovaBACKUP.

Client Module

In this section, we will run through some of the steps required to install and initially configure the NovaBACKUP xSP Client software(the version of NovaBACKUP that was built for you, based on the settings you selected in Builder). This module provides simple instructions for selecting a backup target and running a first backup.

Web Based Restore is a two-part solution. The first part is a module that is installed on the Storage Server and that allows a user to log in and access files that were backed up by the user. On the user side, the user logs in to a special directory on the server. The first time the user logs in, a small piece of software must be installed. The benefit of Web Based Restore is that it enables the user to access and recover files without being required to use the Client software or to restore to the directory from which the backed up file was originally copied.

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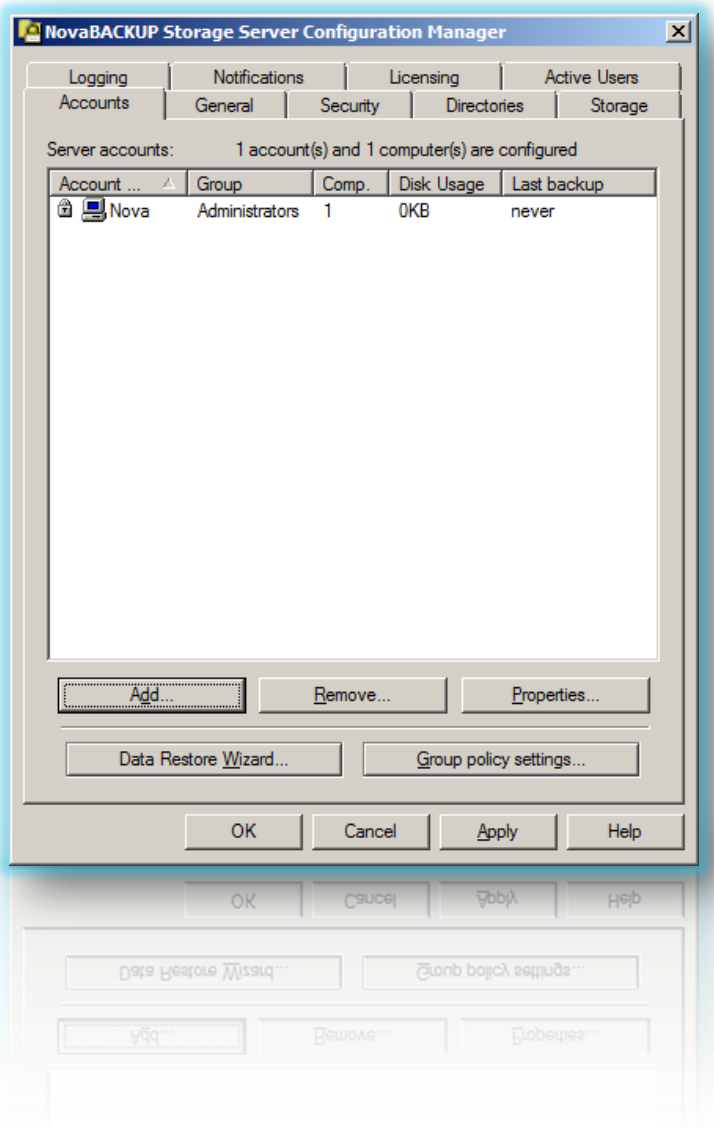
Installing NovaBACKUP xSP Storage Server



A SQL database is central to the structure of the Storage Server. A properly working SQL database server is therefore required to install and operate NovaBACKUP xSP. It is essential that the NovaBACKUP xSP SQL databases are regularly backed up in order to ensure rapid recovery in the event of a system or data failure. The database server is the most significant part of scaling* a NovaBACKUP xSP Storage Server installation.

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Minimum System Requirements

The minimum requirements are listed below:

- Microsoft Windows 2003 Standard/Enterprise SP2 (32 or 64 bit)
  or
- Microsoft Windows 2008 Standard/Enterprise SP1 (32 or 64 bit)
- Connectivity to one of the following:
- Microsoft SQL 205 SP2+
- Microsoft SQL 2008
- .NET 3.5 Framework
- Internet Explorer 7.0 or higher

Info!

* You can download and install the free version of Microsoft SQL called SQL Express, and that will support you until you reach 35 – 50 users. Remember that the free version has a hard memory limit of 4 GB. We recommend the full version of SQL for this reason.

Installation

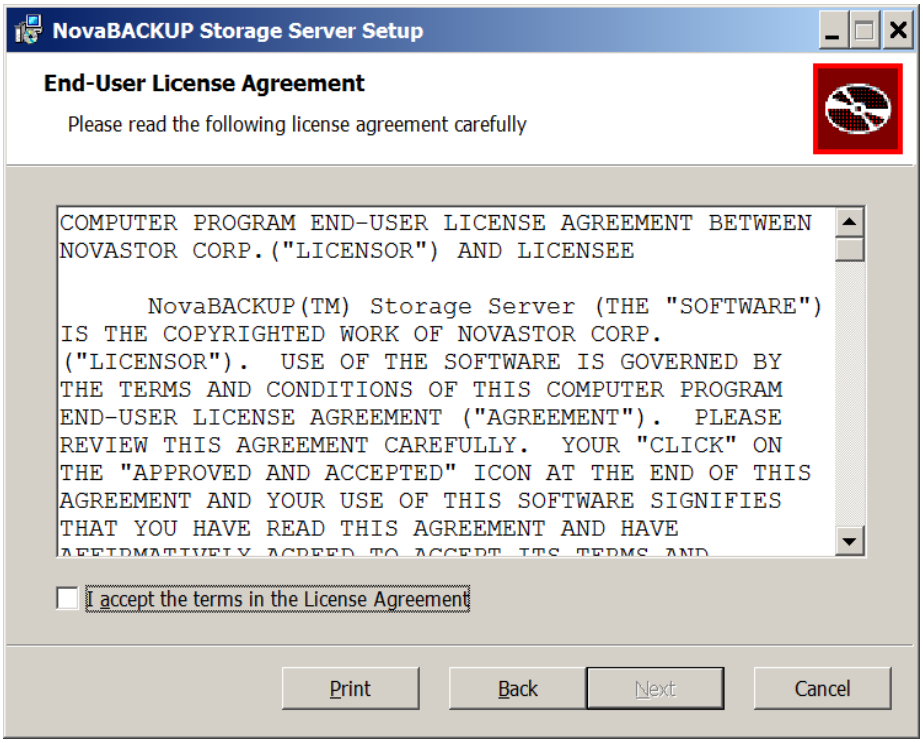
To start installation, click or run the **Setup xSP.exe** to begin the installer wizard. After a few seconds, the NovaBACKUP xSP Storage Server Wizard will open. Click **next**, and the License Agreement screen opens.

Step 1

NovaBACKUP Storage Server Setup
Welcome to the NovaBACKUP Storage Server Setup Wizard
The Setup Wizard allows you to change the way NovaBACKUP Storage Server features are installed on your computer or to remove it from your computer. Click Next to continue or Cancel to exit the Setup Wizard.
Back
Next
Cancel

If you accept the terms of the license, click inside the box next to **I accept the terms in the License Agreement**.

Step 2

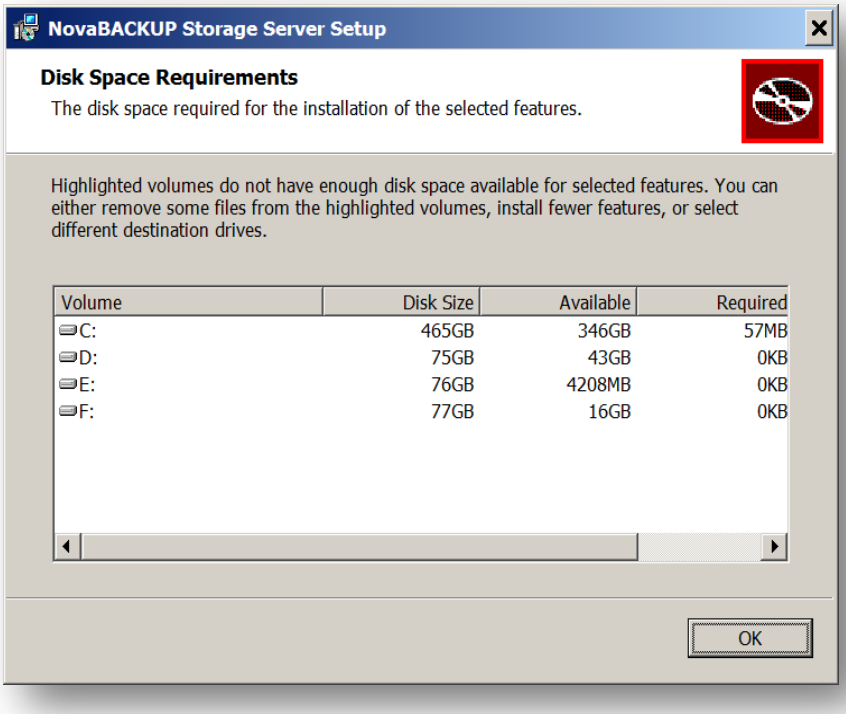

NovaBACKUP Storage Server Setup
End-User License Agreement
Please read the following license agreement carefully
COMPUTER PROGRAM END-USER LICENSE AGREEMENT BETWEEN
NOVASTOR CORP.("LICENSOR") AND LICENSEE
NovaBACKUP(TM) Storage Server (THE "SOFTWARE")
IS THE COPYRIGHTED WORK OF NOVASTOR CORP.
("LICENSOR"). USE OF THE SOFTWARE IS GOVERNED BY
THE TERMS AND CONDITIONS OF THIS COMPUTER PROGRAM
END-USER LICENSE AGREEMENT ("AGREEMENT"). PLEASE
REVIEW THIS AGREEMENT CAREFULLY. YOUR "CLICK" ON
THE "APPROVED AND ACCEPTED" ICON AT THE END OF THIS
AGREEMENT AND YOUR USE OF THIS SOFTWARE SIGNIFIES
THAT YOU HAVE READ THIS AGREEMENT AND HAVE
I accept the terms in the License Agreement
Print
Back
Next
Cancel

Click **next** to move to the next installation step.

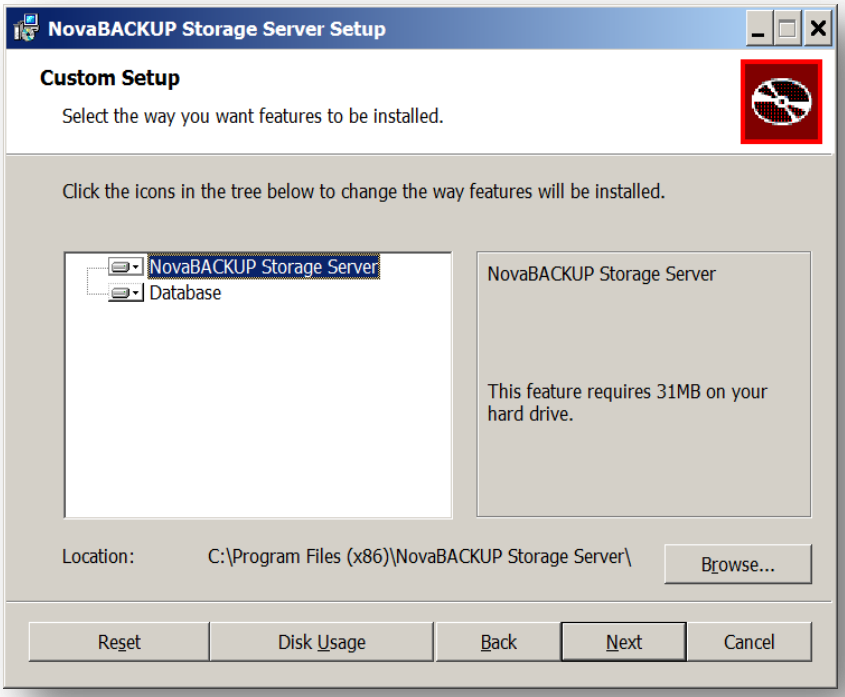
The **Custom Setup** screen opens:

In this screen, the default location for the data files is shown. You can also select a different location by clicking on Browse and selecting an alternate location.
If you are unsure of the amount of space available on your drives, clicking on **Disk Usage** will open the following screen:

Step 3


NovaBACKUP Storage Server Setup
Disk Space Requirements
The disk space required for the installation of the selected features.
Highlighted volumes do not have enough disk space available for selected features. You can either remove some files from the highlighted volumes, install fewer features, or select different destination drives.
Volume
Disk Size
Available
Required
C: 465GB 346GB 57MB
D: 75GB 43GB 0KB
E: 76GB 4208MB 0KB
F: 77GB 16GB 0KB
OK

Click **OK** to return to the Setup screen.



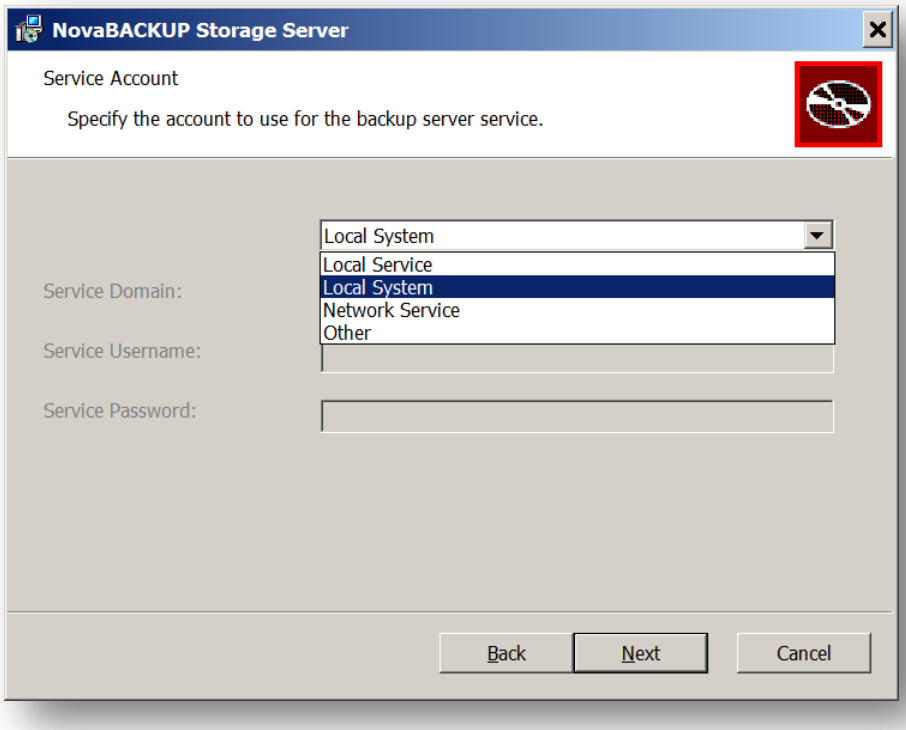
Step 4

NovaStor recommends that you use the C: drive for the SQL databases associated with NovaBACKUP xSP. Once you have selected the target drive, or if you choose to go with the defaults, press **Next**, and you will advance to the Service Account screen.

Info!

If you are performing an Upgrade, you do not need to re-install the database portion unless you want to install a “dummy” database. If you do this, you must edit your backup server.ini to the correct database after install before the backup server connects to the original database.

The screen shown here displays the four service options in the dropdown list. The default, Local System, is shown highlighted. If you choose not to use NovaBACKUP xSP Storage Server as a local system device, you will be prompted for a Service Domain, Service Username, and Service Password.



Step 5

Options for this screen:

*** Local System:**
The built-in Local System user account has a high level of access privileges; it is part of the Administrators group.

Network Service:
The built-in Network Service user account has fewer access privileges on the system than the Local System user account, but the Network Service user account is still able to interact throughout the network with the credentials of the computer account.

Local Service:
The built-in Local Service user account has fewer access privileges on the computer than the Network Service user account, and those user privileges are limited to the local computer. Use the Local Service user account if the worker process does not require access outside the server on which it is running.

Tip!

* We're installing with the Local System account in the example above, as you want the service running with the highest possible level of access.

Also be aware that the name of the service as it will appear under Win services is 'Backup Server'.

Once the type of account is selected, press **Next** to move to the next step in installation.
The following screen asks you which type of SQL program will be used for the database services required by the xSP Storage Server. Because MySQL* is an open source SQL database program, support for MySQL from NovaStor is very limited. We find that Microsoft SQL Server is a better commercial product developed and supported by Microsoft and a network of consultants, and has numerous online support forums. NovaStor encourages the use of Microsoft SQL Server with NovaBACKUP xSP if at all possible.

Select the SQL Server Provider, and Click **Next**.

Coming to the next screen, you choose the correct instance of SQL, and use either Windows or SQL authentication. If you are not familiar at all with SQL please use Windows authentication. When you choose SQL server and it asks for the account, this is the **sa** account. Remember if you want to us the **sa** account it must be enabled in SQL, and you must have a password activated. We find that setting your SQL to use mixed mode authentication is helpful and will get you through any issues on this screen. Still, we find the majority of customers who have no SQL knowledge getting stuck on this particular screen. If you are not sure what to put in the SQL server field, or what an instance name is, open SQL Server Management Studio. The very first screen in Management Studio has the SQL instance name you can copy and paste into the setup wizard.

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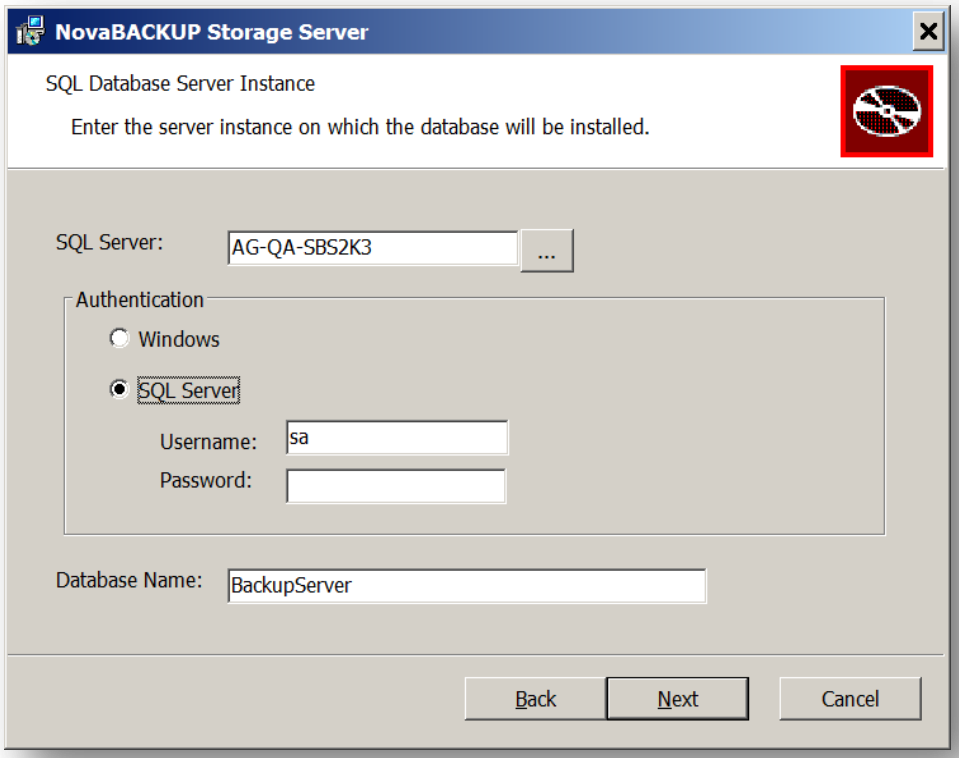

Step 7

Tip!

If you are browsing for SQL instances and cannot see anything listed, the SQL Browser service will need to be turned on for you to be able to have the instances automatically detected in the wizard.

The SQL Server names available on the network are retrieved by the NovaBACKUP xSP Storage Server installer. The server instances shown may not be the instance you choose to use. The database name field at the bottom will be the name given to the database when it is created. The default is always BackupServer, but this can be changed to anything you like.

Click **Next** to continue.

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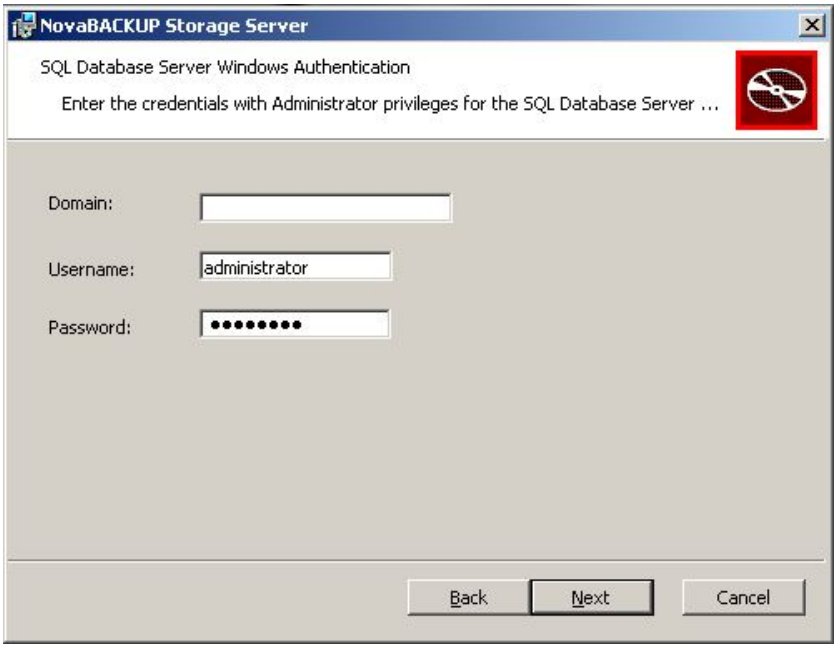
This next screen will ask for your Windows Administrator username for the machine with SQL installed on it. Adding the domain name is optional**.**

Step 8

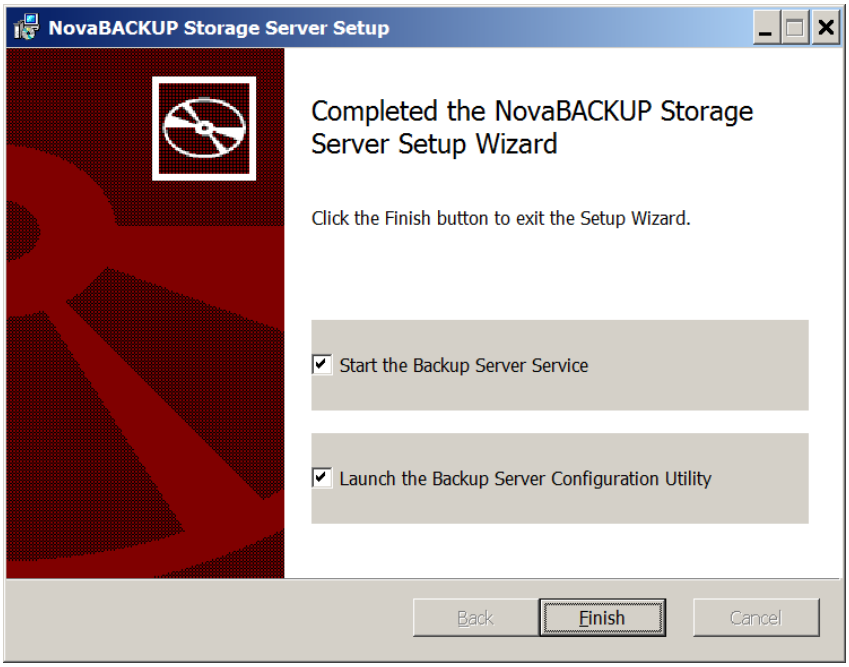


Click **Next**.

Step 9

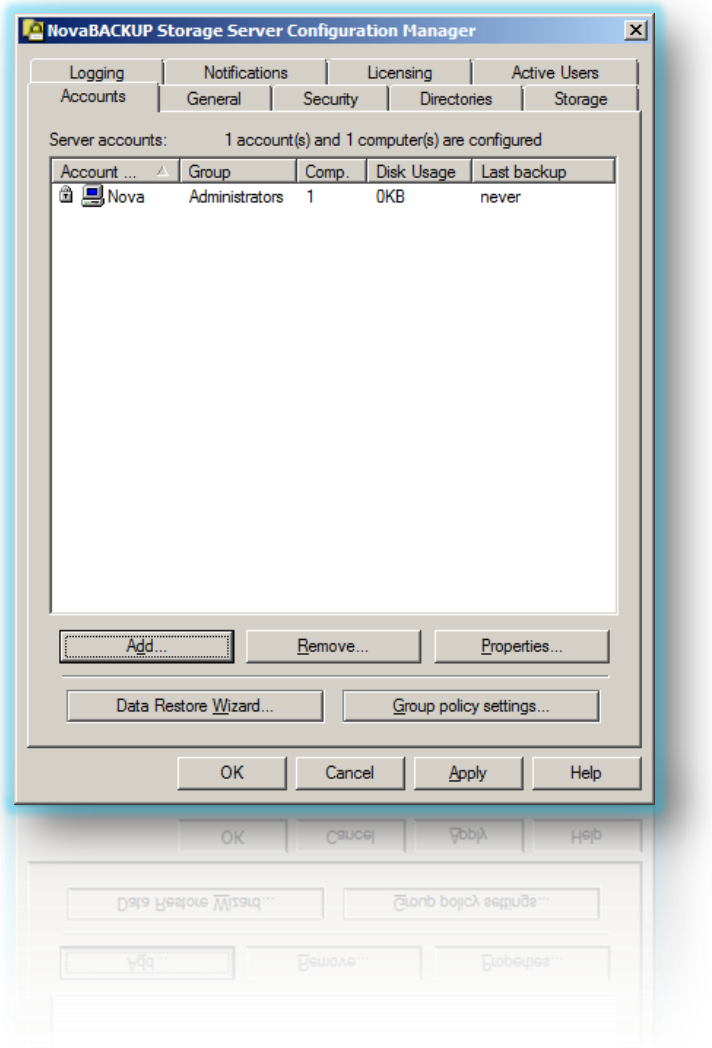
Tip!

A good practice is to go to Windows services and set the service to run with your Administrator credentials before starting the service and the Configuration Manager.


NovaBACKUP Storage Server Setup
Completed the NovaBACKUP Storage Server Setup Wizard
Click the Finish button to exit the Setup Wizard.
Start the Backup Server Service
Launch the Backup Server Configuration Utility
Back
Finish
Cancel

The Final screen shows **Start the Backup Server Service** and **Launch the Backup Server Configuration Utility**. These items are checked by default, and will run, if checked, once you click **Finish**.

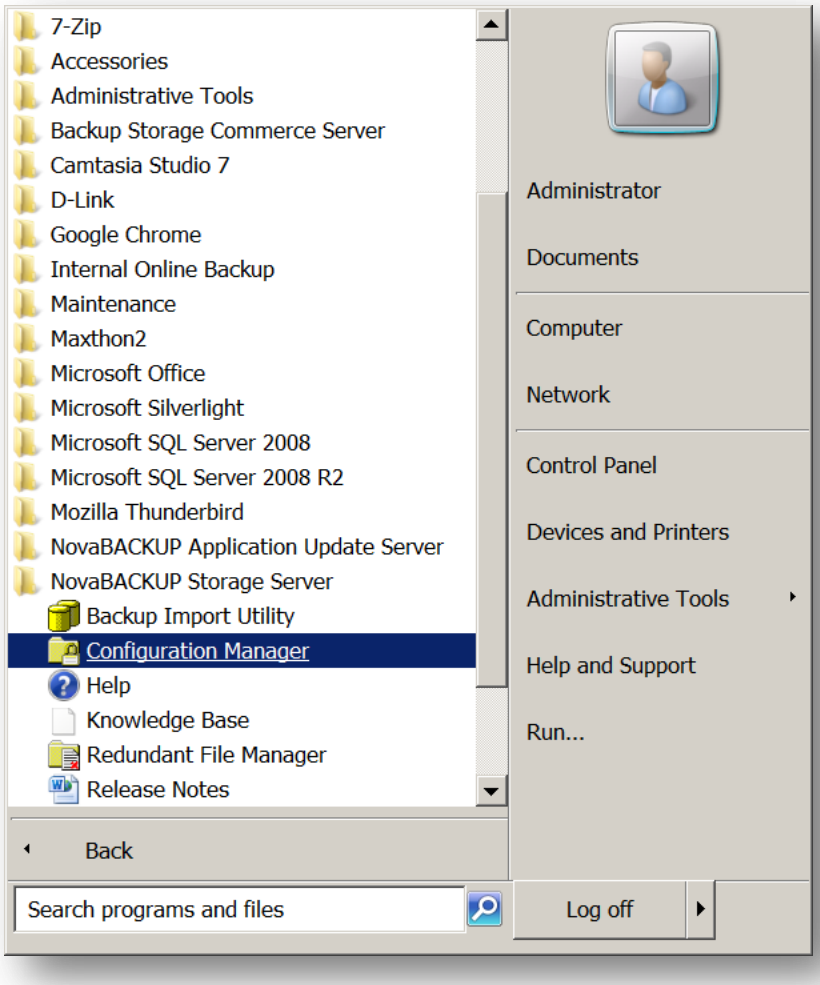
NovaBACKUP xSP Storage Server Configuration Manager



Starting up the Configuration Manager

The NovaBACKUP xSP Storage Server Configuration Manager is your primary access point for managing NovaBACKUP xSP. The Storage Server Configuration Manager provides you with access to all the main configuration menus required to manage your Storage Server.

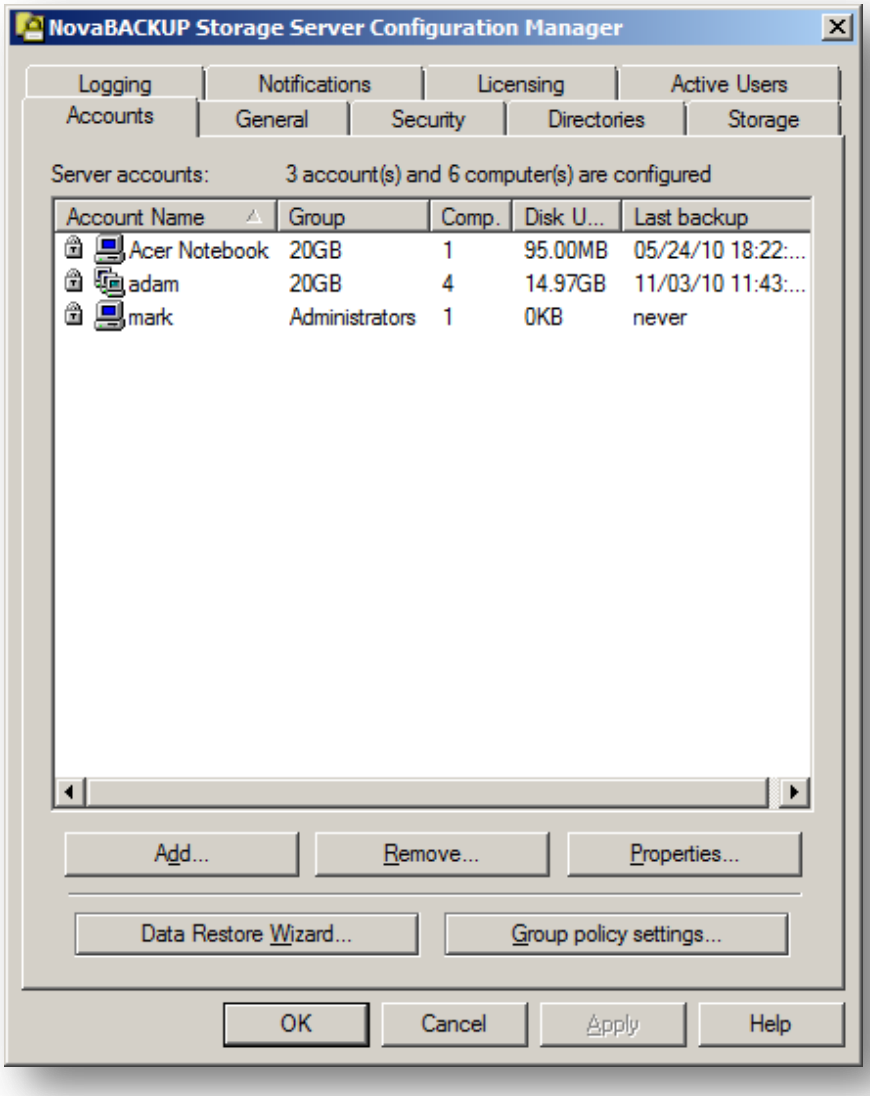
The NovaBACKUP xSP Storage Server Configuration Manager is launched from the Start Menu. When the Start Menu is opened, move the mouse over **All Programs** until the additional program screen opens, or click on All Programs to reveal the additional programs available. Then, click on **NovaBACKUP Storage Server** and select **Configuration Manager**, as shown here:



After you left-click on **Configuration Manager**, the NovaBACKUP xSP Storage Server Configuration Manager will open.

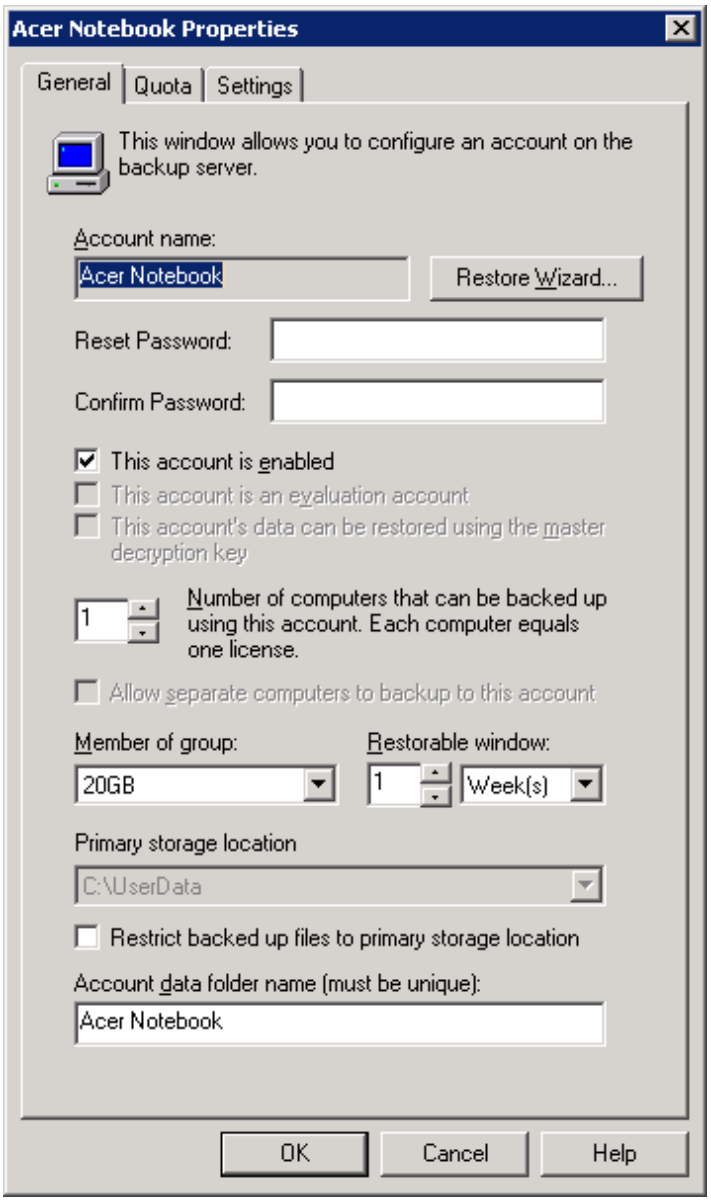
Accounts

This is the tab that is opened by default, as shown below. The primary function of this tab is to enable you to add, remove, or view the Properties of your client accounts that use this Storage Server for their backups.



Accounts management screen:
You can access the account properties and add or remove an account all on the same screen. The Accounts Properties Screen shows the properties of the account you have selected, and the Accounts Add Screen has not yet been populated with account information. In addition, you can create and manage Groups in this screen.

A typical account properties screen has three tabs: General, Quota, and Settings.



Tip!

Please be aware that you are only able to manage passwords in this screen if you have used SQL authentication during the installation. If Active Directory is handling authentication, these fields will not appear. If you want to change authentication methods after you've installed, please contact support for details on this.

The General Tab

Pictured above is the General tab, which is used to set the general settings for a new or existing account. It specified where the user's data will be stored, assigns the account to a group, and sets the length of time that restorable data will be held. Group information is selected from the dropdown menu. You can only select a pre-defined group to which this account can be assigned. When an account name is entered, a password is not required. A password can be added after the account is created.

Accounts can be created with multiple licenses. It is possible, therefore, for a license to allow multiple computers to back up to the Storage Server. The number of computers is set up in this screen. It is also possible that an account will support more than one computer, but that the

account can be set up to only allow one machine to access it at a time, rather than one or more simultaneously. The **Allow separate computers to backup to this account** check box will enable multiple computers on the account to simultaneously access the Storage Server.

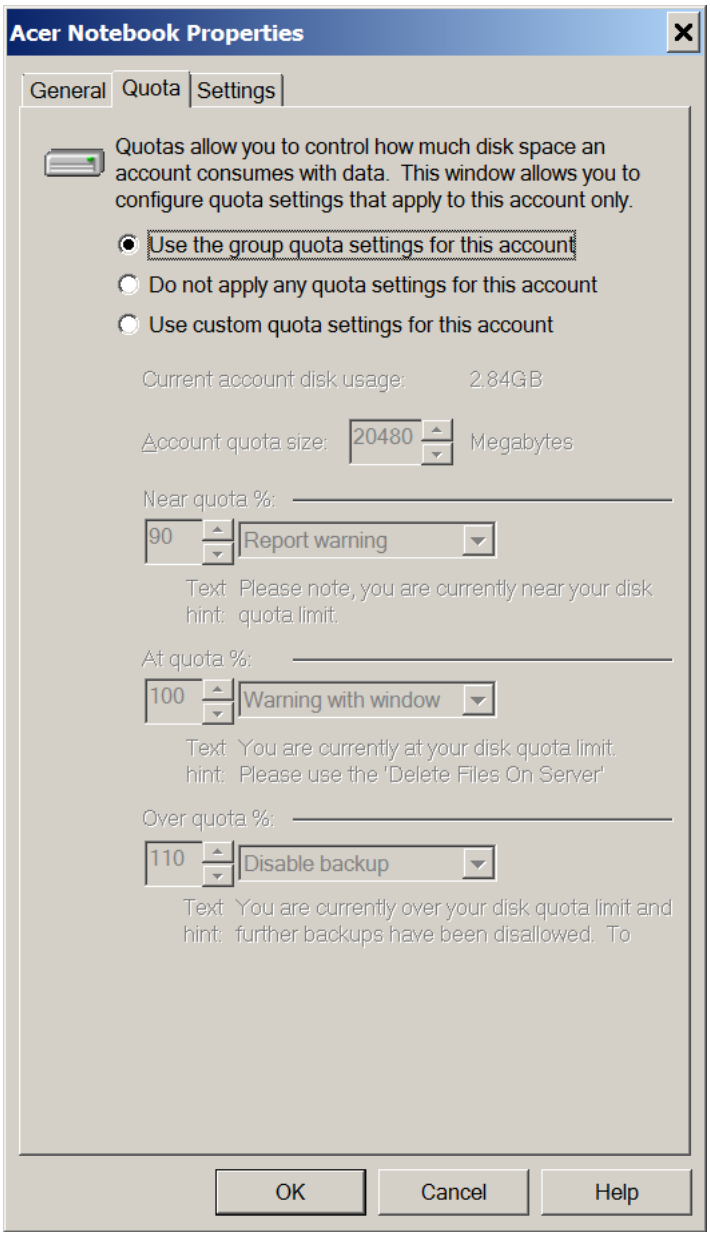
The **primary storage location** specifies where the backup server will cache certain account information. The storage location is selected from a list of location specified on the Storage tab, which will be discussed more in a later section. In addition to account information, this is also where an **account data folder** will be created, which serves as a repository for files that are backed up by the client that holds the account. By default, the data folder name is the same as the account name. You can change the data folder name to suit your own needs, but it must be unique across all account.

As the client backs up files they are stored in the data folder. If the disk that contains the folder fills up then file data will automatically be directed to an alternate storage location if one is available. The automatic redirection feature can be disabled for the account by checking Restrict backed up files to primary storage location.

For new installations, setup creates the default storage location C:\UserData. For upgrades from versions prior to 12.0, setup creates storage locations based on account information found in the existing database.

Upgraded accounts will be restricted to the primary storage location for compatibility with the older software. After an upgrade, review the account properties to make any desired adjustments to the default settings.

The Quota Tab


Acer Notebook Properties
General
Quota
Settings
Quotas allow you to control how much disk space an account consumes with data. This window allows you to configure quota settings that apply to this account only.
Use the group quota settings for this account
Do not apply any quota settings for this account
Use custom quota settings for this account
Current account disk usage: 2.84GB
Account quota size: 20480 Megabytes
Near quota %:
90
Report warning
Text hint: Please note, you are currently near your disk quota limit.
At quota %:
100
Warning with window
Text hint: You are currently at your disk quota limit. Please use the 'Delete Files On Server'
Over quota %:
110
Disable backup
Text hint: You are currently over your disk quota limit and further backups have been disallowed. To
OK
Cancel
Help

Tip!

You can set up quotas on individual accounts or set a quota on a group. By default when you create an account, there are no quotas or limitations in place.

Also note that your Storage Server can send quota related warning reports, pop-up warning windows inside the client, or even disable a client's backup. All this can be configured in this screen.

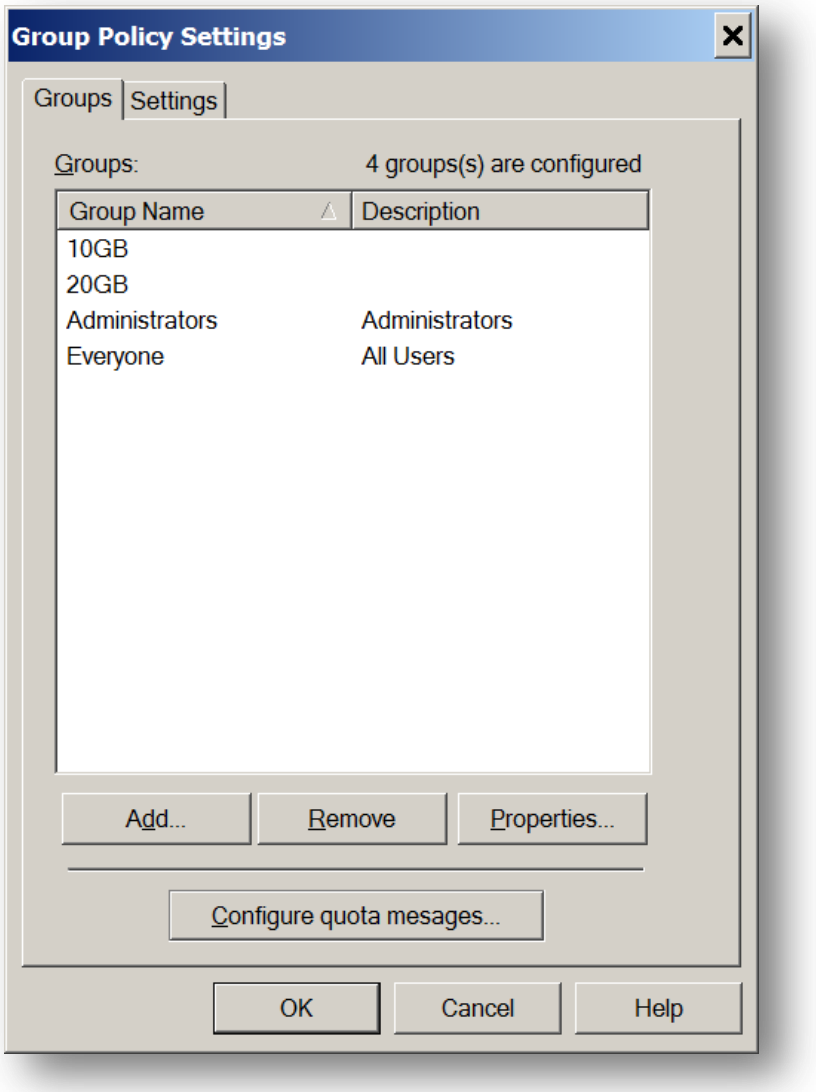
The Settings Tab

This screen enables you to add a new setting, edit the value of a setting, or delete a setting from this account. **Settings are pre-defined, and are included in a list at the end of this manual in the Appendix, on page 130.**

Returning to the Accounts tab will occur automatically after you press **OK** or **Cancel** in the Account Properties or Account Creation screen.

There are two more features selectable from buttons on the Accounts Tab: **Data Restore Wizard** and **Group Policy Settings**.

Group Policy Settings
Opens a list of groups, shown here:



This screen lists the Groups that are already defined, and also enables you to add groups. When you select a group and click Properties, or click **Add**, a screen like the one shown here to add accounts, or enter account properties will appear.

Data Restore Wizard
This built in restore wizard enables you to upload a customer's entire backup to another media or location. You have complete control over what type of media to write to, and can specify custom sizes for new folders. The process will write a series of folders into whatever location you're uploading to, including a folder called setup. Inside the setup folder, is a setup.exe that you will need to run when you are ready to restore. This opens a lite version of the client made specifically for restore. It is at this point you are able to restore individual files or the account's entire backup. The initial screen looks like this:

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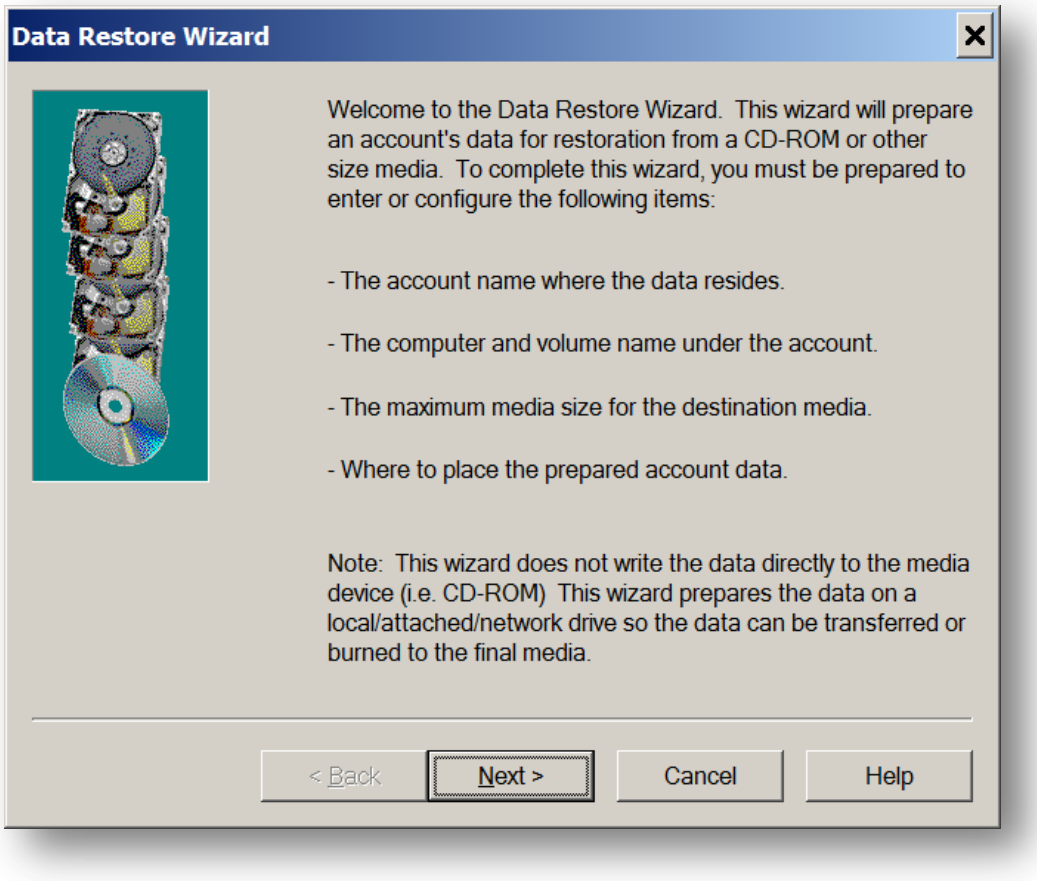
Data Restore Wizard
Welcome to the Data Restore Wizard. This wizard will prepare an account's data for restoration from a CD-ROM or other size media. To complete this wizard, you must be prepared to enter or configure the following items:
- The account name where the data resides.
- The computer and volume name under the account.
- The maximum media size for the destination media.
- Where to place the prepared account data.
Note: This wizard does not write the data directly to the media device (i.e. CD-ROM) This wizard prepares the data on a local/attached/network drive so the data can be transferred or burned to the final media.
< Back
Next >
Cancel
Help

Once the wizard opens, you will see a list of accounts and the current disk usage of each. This is shown on the next page.

Info!

Media you can use: CD/DVD/BDU (Blu-ray), internal or external hard disc, or Flash Drive (still compressed and encrypted).

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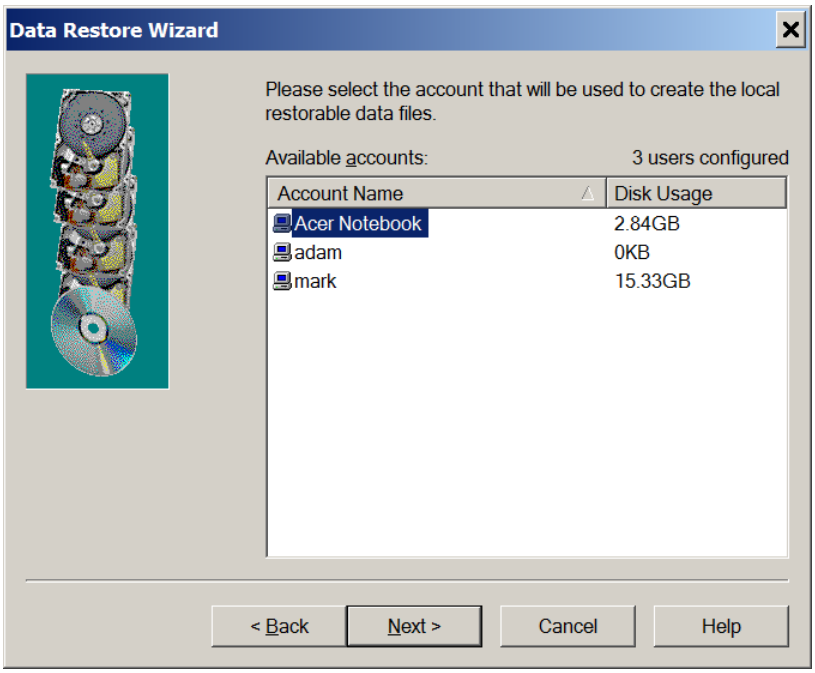
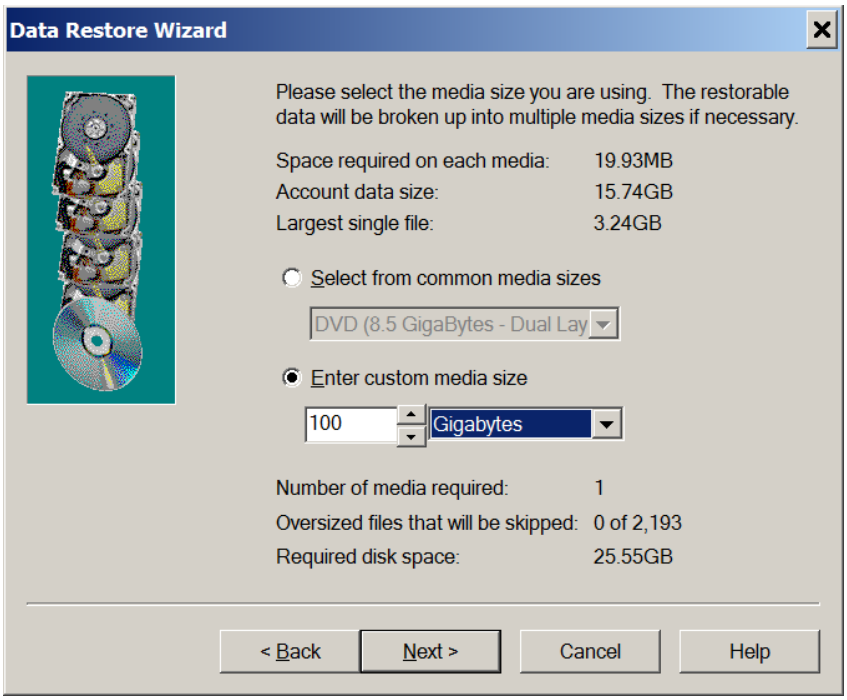
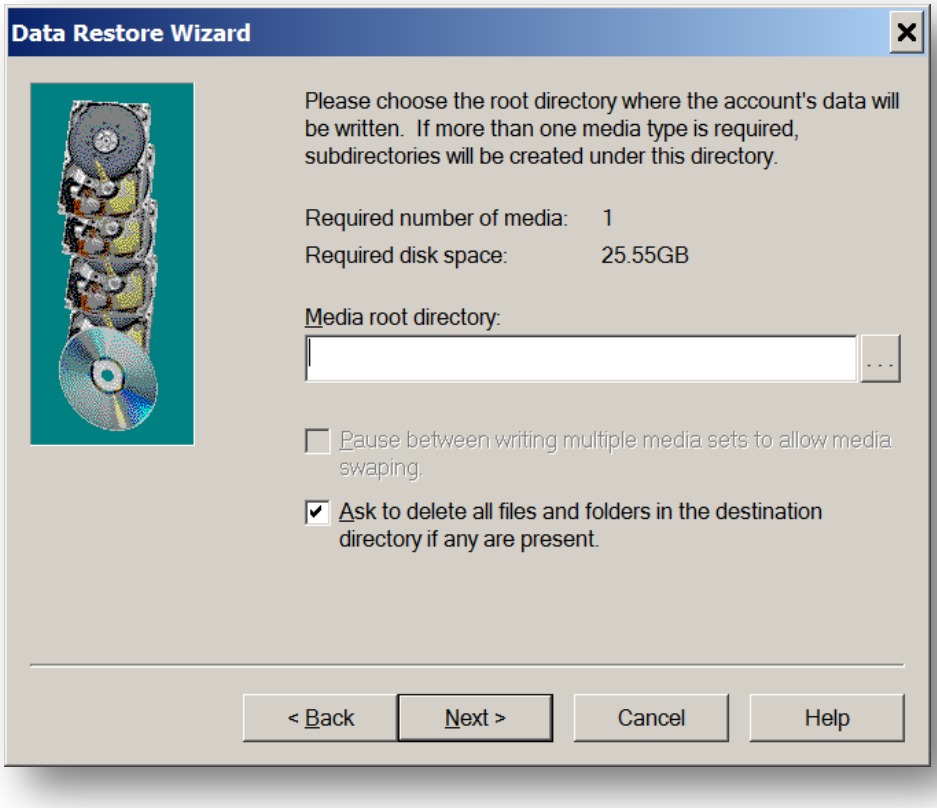
Here you select the account you want to restore, and press **Next**. Then select a volume that you wish to restore, such as the C: drive. The Data Restore Wizard will provide information about the space required to make the restore files, and then let you choose a target for the data restore files. It is at this stage you are able to specify the media.



The screen, with Custom Media Size selected is shown here:



Press **Next**, and you will be asked to select a Media root directory to which the restore files will be written. The option to **ask to delete all files and folders in the destination directory if any are present** appears as a check box. This should be checked if a single directory is used to create restore files for multiple accounts. This way, you will be assured that the account receiving the restore data does not receive data from other accounts.


Data Restore Wizard
Please choose the root directory where the account's data will be written. If more than one media type is required, subdirectories will be created under this directory.
Required number of media: 1
Required disk space: 25.55GB
Media root directory:
Pause between writing multiple media sets to allow media swaping.
Ask to delete all files and folders in the destination directory if any are present.
< Back
Next >
Cancel
Help

You may browse for a target directory or enter the name of a target directory.

You will next be asked to select the language that will be used by the user when running data restore Setup.

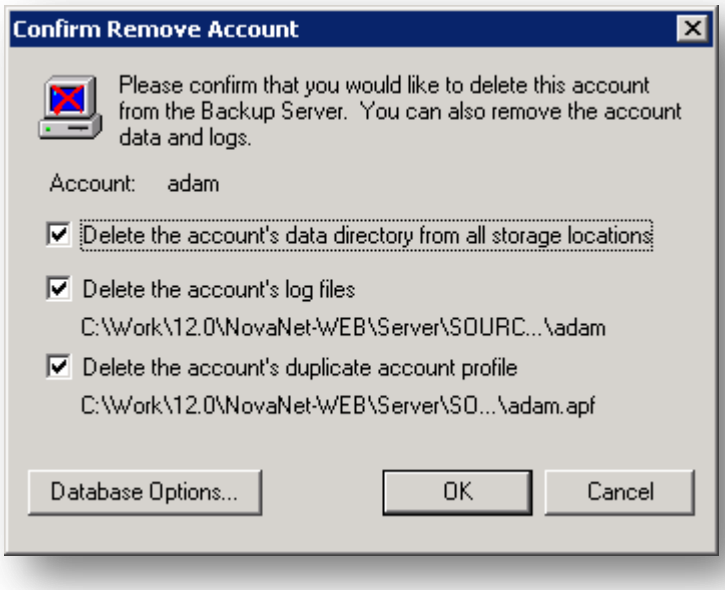
Next, you will be asked to enter information that you would like displayed in the about box for the product support. You may choose to leave this empty, if desired.

The next screen provides information about the Data Restore process that you've configured. Press **Prepare account data now!** - And the process of creating data restore media will begin.

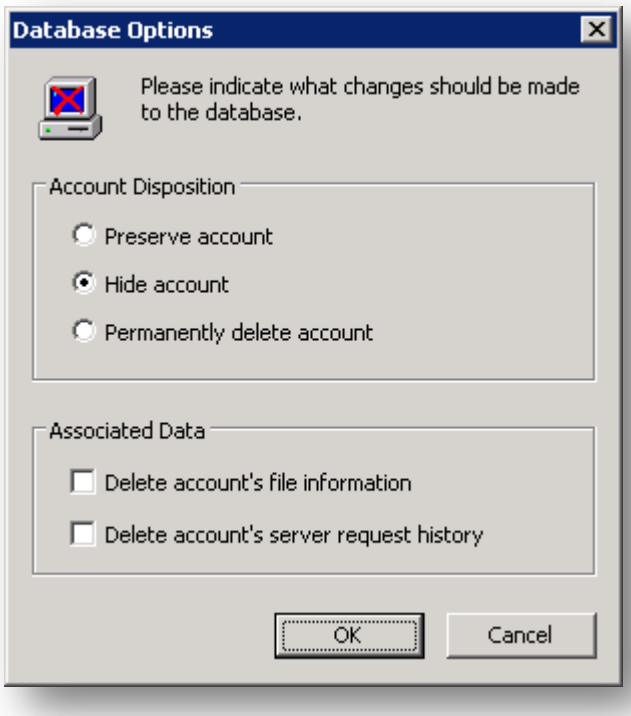
You may, of course, cancel the setup by pressing **Cancel**. You may also press the **Back** button to make changes to the data restore setup.

Deleting an account

In addition to adding and modifying accounts, you can remove an account from the system by selecting the account in the list, then pressing the **Remove** button. A confirmation dialog will prompt you for additional instructions, as shown below.


Confirm Remove Account
Please confirm that you would like to delete this account from the Backup Server. You can also remove the account data and logs.
Account: adam
Delete the account's data directory from all storage locations
Delete the account's log files
C:\Work\12.0\NovaNet-WEB\Server\SOURC...\adam
Delete the account's duplicate account profile
C:\Work\12.0\NovaNet-WEB\Server\SO...\adam.apf
Database Options...
OK
Cancel

The default action is to remove all data associated with the account from disk storage and mark the account as deleted in the database. You can alter the action based on your needs. For instance, you may choose to retain the data directories and delete them manually at a later time. The **Database Options** button displays another dialog allows you to modify the database actions.



Tip!

A permanently deleted account cannot be "undeleted." Choose this option only if you are certain the account information is no longer needed.

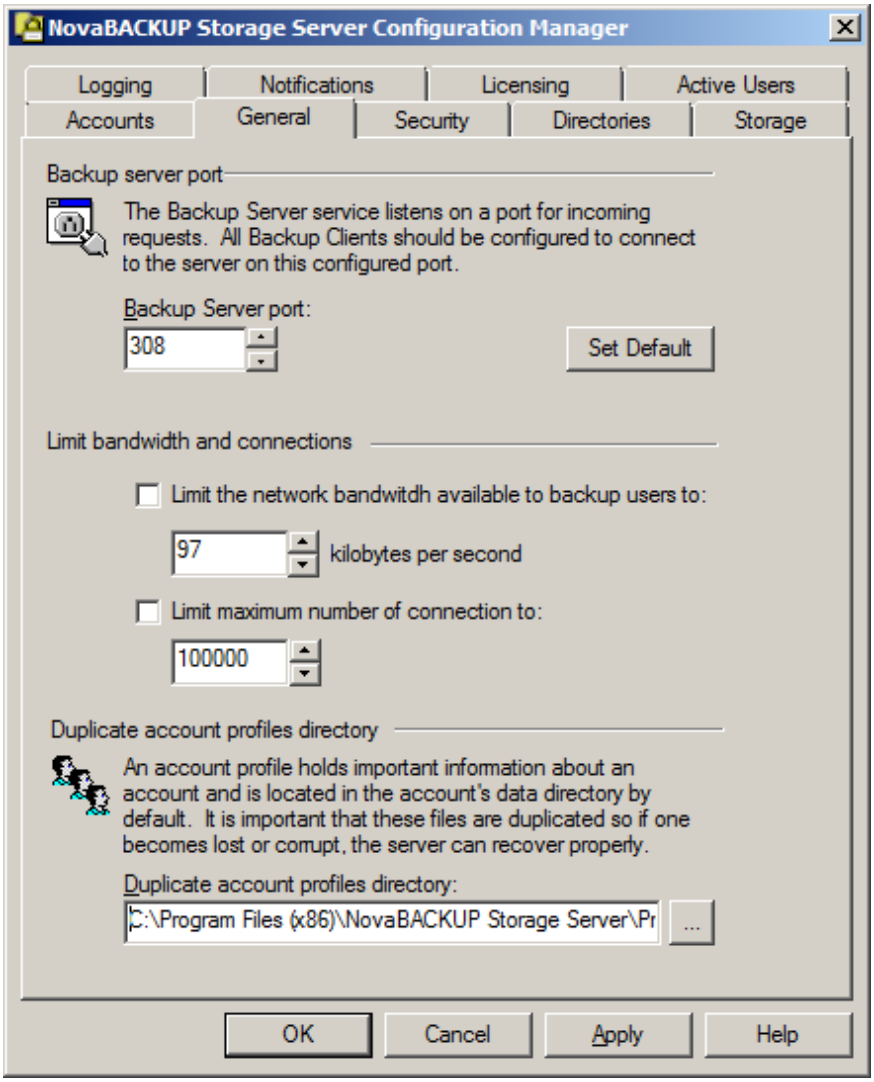
Hidden accounts are automatically restored if an account with the same name is added through the Accounts tab.

The normal account disposition is the "hide" the account, that is, keep it in the database but flag it as deleted. This permits the account to be "undeleted" later, if necessary. You can also choose **Preserve Account** if the account should not be flagged as deleted, or **Permanently delete account** to remove the account from the database.

You may optionally choose to delete the account's file information, which describes all the files backed up by the account, or the request history, which is a log of requests the server has received from the account. Note that you do not have the option of keeping any associated data if the account is being permanently deleted.

General Tab

The General Tab has some powerful features that enable you to control certain global settings. The default Storage Server port is 308 – unless you have a reason to change the port, it should remain at 308. If you want to change the port number, you may do so by scrolling up or down in the **Storage Server port**: window, or by typing in a new port number. When that number is entered, press **Set Default** to save the new port as the default.


NovaBACKUP Storage Server Configuration Manager
Logging
Notifications
Licensing
Active Users
Accounts
General
Security
Directories
Storage
Backup server port
The Backup Server service listens on a port for incoming requests. All Backup Clients should be configured to connect to the server on this configured port.
Backup Server port:
308
Set Default
Limit bandwidth and connections
Limit the network bandwidth available to backup users to:
97
kilobytes per second
Limit maximum number of connection to:
100000
Duplicate account profiles directory
An account profile holds important information about an account and is located in the account's data directory by default. It is important that these files are duplicated so if one becomes lost or corrupt, the server can recover properly.
Duplicate account profiles directory:
C:\Program Files (x86)\NovaBACKUP Storage Server\Pr
...
OK
Cancel
Apply
Help

Tip!

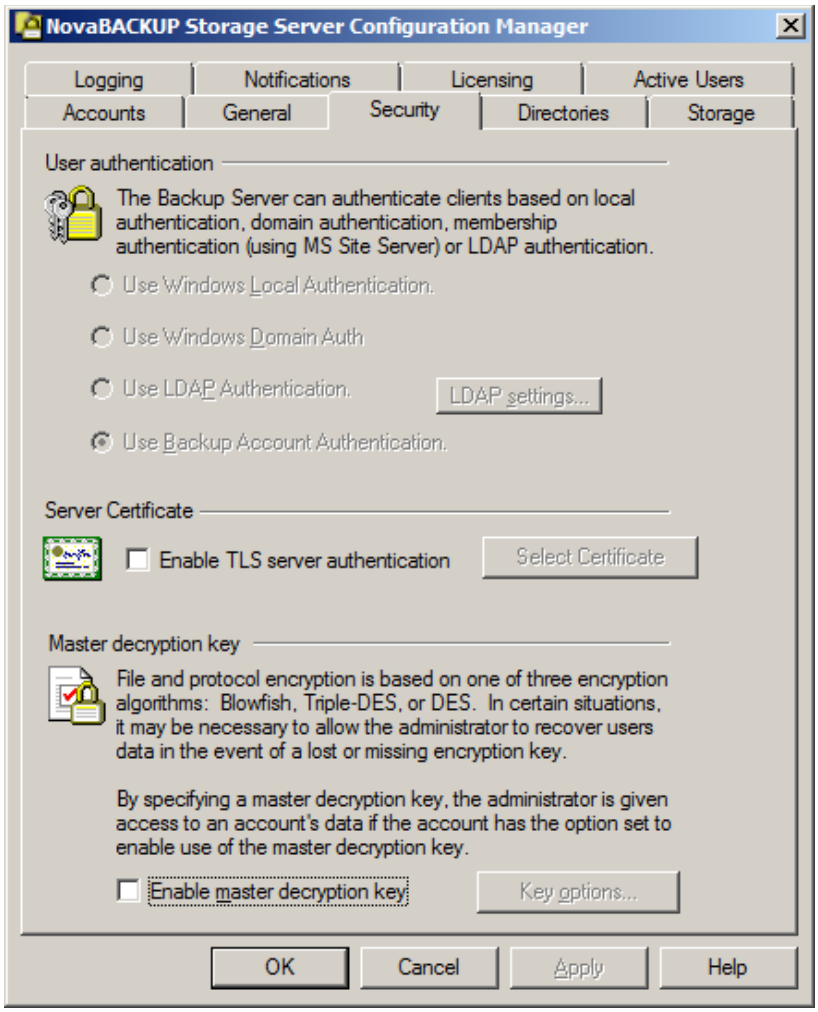
If you change the server port, be aware you will need to edit the client's backupclient.ini file so that the server and client communicate over the same port. You can ask Support for more info about this.

The **Limit bandwidth and connections** section of the General tab allows you to create bandwidth limits for backup users. If you are running other processes on your computer besides functioning as a Storage Server, you may choose to create bandwidth limits.
The final section in the General tab is **Duplicate account profiles directory**. As explained in the text that is included in this area, it is important that one or more copies of account profiles be

duplicated and stored in a separate directory. This way, should a user.apf become corrupted, the account information can be restored from information stored in the backup .apf file. You may use the browse button to select a different directory, or just accept the default by making no changes.

Security Tab

The Security Tab defines the authentication method you have chosen during the install.


NovaBACKUP Storage Server Configuration Manager
Logging
Notifications
Licensing
Active Users
Accounts
General
Security
Directories
Storage
User authentication
The Backup Server can authenticate clients based on local authentication, domain authentication, membership authentication (using MS Site Server) or LDAP authentication.
Use Windows Local Authentication.
Use Windows Domain Auth
Use LDAP Authentication.
LDAP settings...
Use Backup Account Authentication.
Server Certificate
Enable TLS server authentication
Select Certificate
Master decryption key
File and protocol encryption is based on one of three encryption algorithms: Blowfish, Triple-DES, or DES. In certain situations, it may be necessary to allow the administrator to recover users data in the event of a lost or missing encryption key.
By specifying a master decryption key, the administrator is given access to an account's data if the account has the option set to enable use of the master decryption key.
Enable master decryption key
Key options...
OK
Cancel
Apply
Help

You may implement TLS if you have a certificate that can be applied for authentication. For information about Transport Layer Security, visit:
http://en.wikipedia.org/wiki/Transport_Layer_Security

A word about the master decryption key:

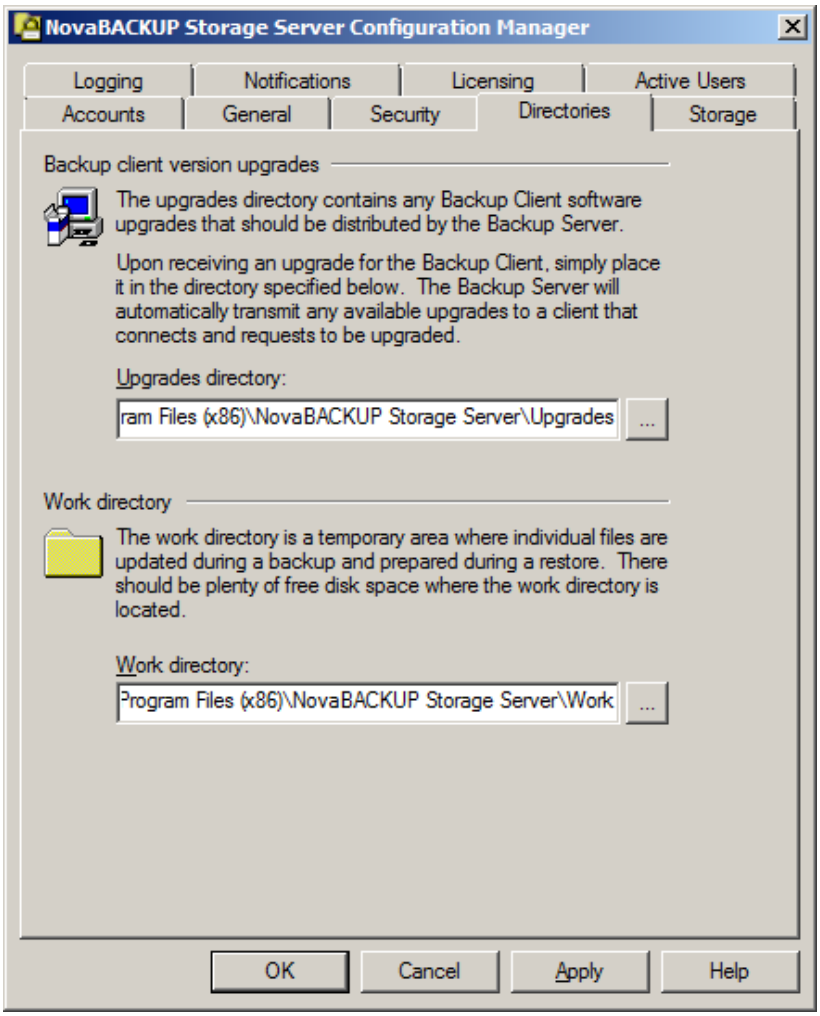
The master decryption key is a key that can be used to decrypt user backups. This little feature is often overlooked but it can be extremely valuable. In the event that a user loses or forgets his or her decryption key, use of the master decryption key may be the only way to restore the user's data.

The user may choose to disable the master decryption key using an option in its client software. Although this may be perceived as providing protection from inappropriate activities by the backup service provider, it is also making recovery of data nearly impossible if user encryption keys are lost or forgotten.

If you find that the button to enable the master decryption key is grayed out, make sure that you are logged into your server as the same specific user your backup Server Service is running as. Typically this should be your Domain Administrator account.

Directories Tab

The Directories Tab specifies the location where upgrade files are stored, and also specifies the Work Directory. The use of this upgrade directory is a legacy feature that is used only for NovaNET-Web 7.x and earlier versions. When a client runs the client software and checks the Check for Upgrades tab in the software, this is the directory where the server will search for an upgrade. It is important, when copying legacy .pat files into the server that the upgrade files be placed into the correct upgrade folder.


NovaBACKUP Storage Server Configuration Manager
Logging
Notifications
Licensing
Active Users
Accounts
General
Security
Directories
Storage
Backup client version upgrades
The upgrades directory contains any Backup Client software upgrades that should be distributed by the Backup Server.
Upon receiving an upgrade for the Backup Client, simply place it in the directory specified below. The Backup Server will automatically transmit any available upgrades to a client that connects and requests to be upgraded.
Upgrades directory:
ram Files (x86)\NovaBACKUP Storage Server\Upgrades
...
Work directory
The work directory is a temporary area where individual files are updated during a backup and prepared during a restore. There should be plenty of free disk space where the work directory is located.
Work directory:
Program Files (x86)\NovaBACKUP Storage Server\Work
...
OK
Cancel
Apply
Help

The Work directory stores the interim files during a rollup and restore. This screen suggests that the directory has a considerable amount of room to copy these temporary files. This is especially important if multiple clients are attempting upgrades at the same time (for best practices, this directory should be as large as your largest customer).

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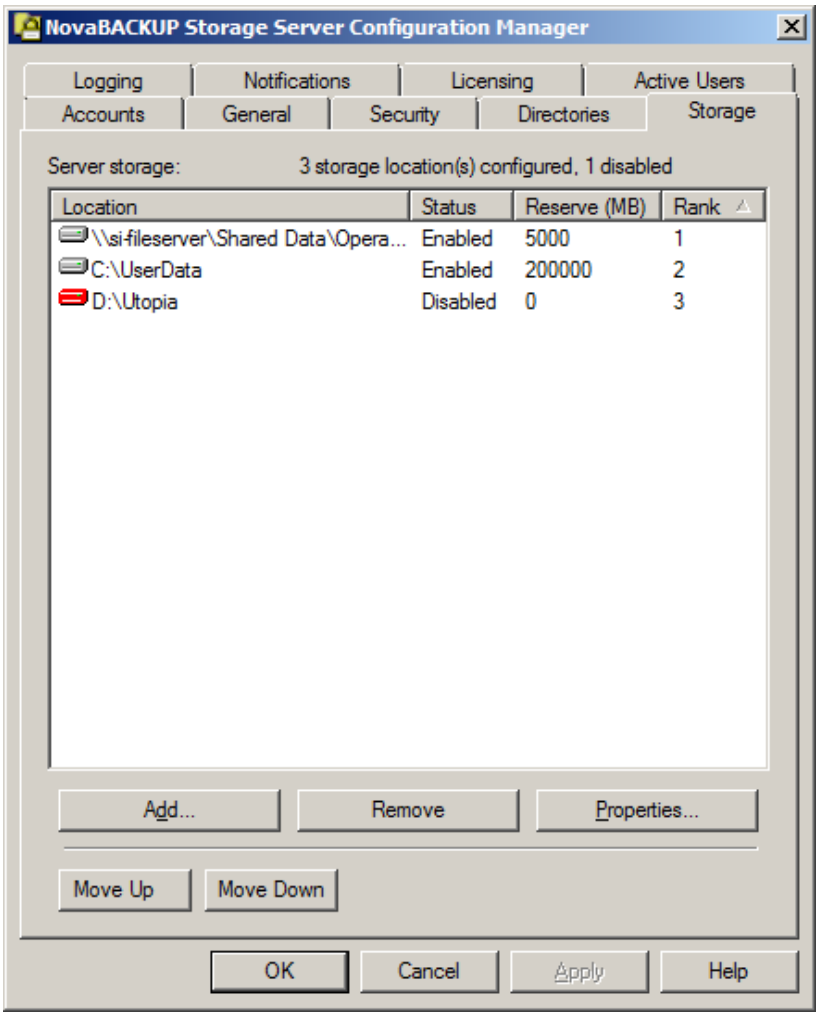
Storage Tab

This tab provides a way to define multiple storage locations for backed up files. Each time the server gets a request to store a file it looks at the accounts primary storage location (see Accounts tab) and checks if the free space is greater than the reserve specified for the location. If free space is greater than the reserve, then the file sent to that storage location, otherwise the test is repeated on all other defined locations, in order of rank, until a usable location is found. If none is found, then the backup is aborted.



Tip!

The reserve is only a guideline, not a hard limit. Patches to a file (incremental changes) are always stored in the same location as the original file. Also, the server cannot split a large file across multiple locations. Therefore, ensure there is an adequate margin to allow existing files to grow as incremental patches are applied. Leave extra room if you anticipate your users will be storing very large files.

A red disk icon indicates the location does not exist. The server will attempt to create it first time a request is made to store a data there.

Use the Add button to define a new storage location. Use the Properties button to view or modify a location's settings. Use the Remove button to delete a storage location. You cannot remove a storage location if any accounts are using it. Use the Move Up and Move Down buttons to adjust the rank of the selected storage location. Changes are not saved until you press the Apply or OK buttons.

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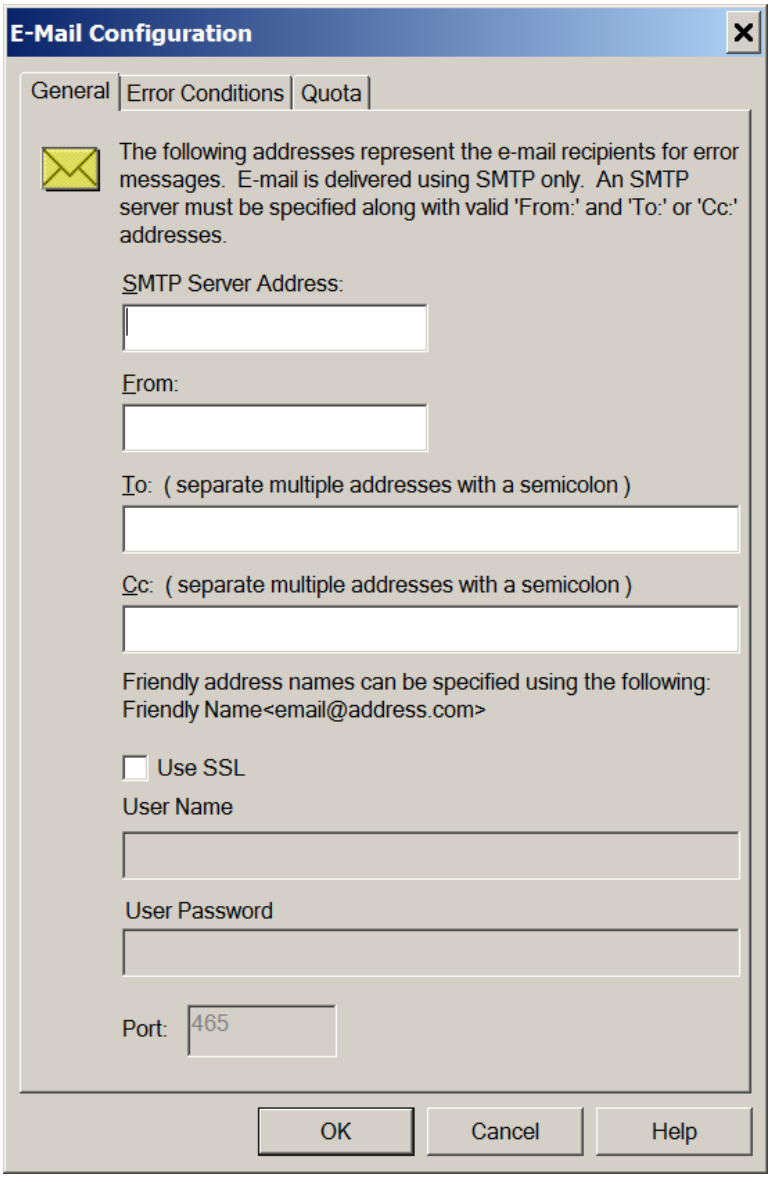
Notifications Tab

The Notifications tab is used for the following reasons:

- Enable or disable email notification to your backup accounts.
- Enable or disable event logging in the Windows event viewer.
- Set up administrative alerts being sent to your Administrative email address.

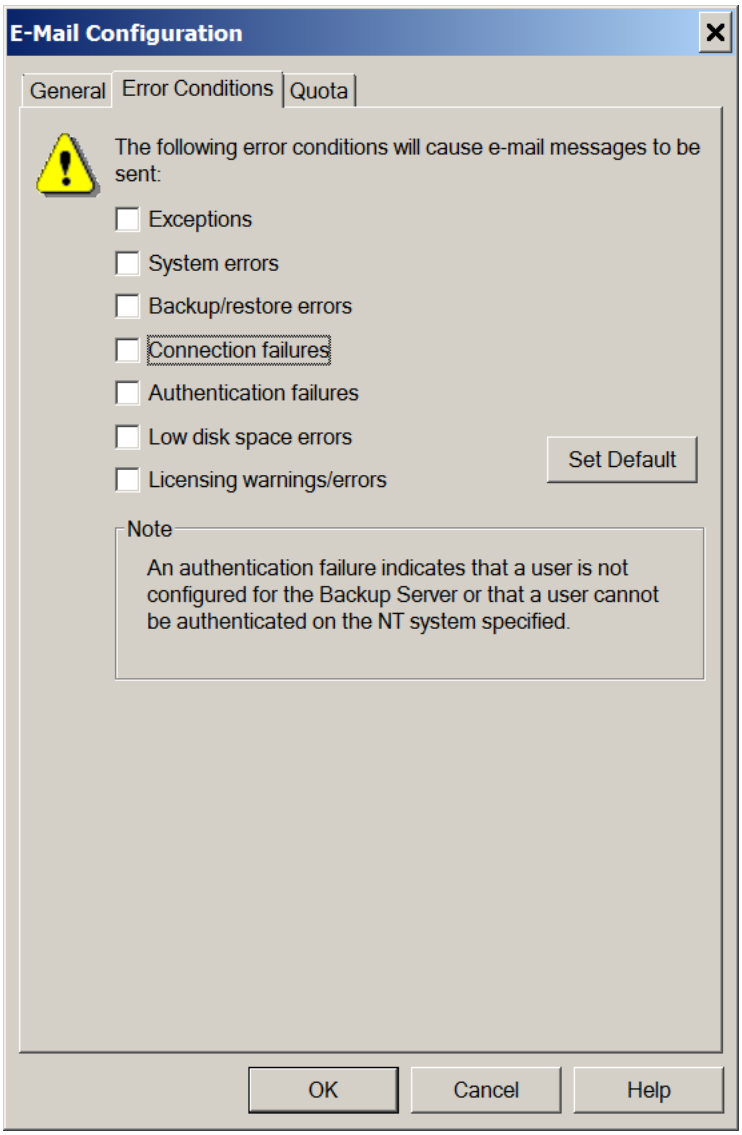
If you enable any mail notification, you will have to enter the specific mail settings.

In order to set the mail options, you must first click in the **Send mail** notifications box on this tab, and then click the **Mail Options** button. This will open the **E-Mail Configuration Menu**.


E-Mail Configuration
General
Error Conditions
Quota
The following addresses represent the e-mail recipients for error messages. E-mail is delivered using SMTP only. An SMTP server must be specified along with valid 'From:' and 'To:' or 'Cc:' addresses.
SMTP Server Address:
From:
To: (separate multiple addresses with a semicolon)
Cc: (separate multiple addresses with a semicolon)
Friendly address names can be specified using the following:
Friendly Name<email@address.com>
Use SSL
User Name
User Password
Port:
465
OK
Cancel
Help

The E-Mail Configuration menu requires the SMTP Server Address, From: To: and also allows you to send multiple copies. You may also use Secure Socket Layer (SSL) to send your messages. The E-Mail Configuration screen looks like this:

Additionally, you can select the Error Conditions that will trigger the sending of E-Mail, as shown on the next page.

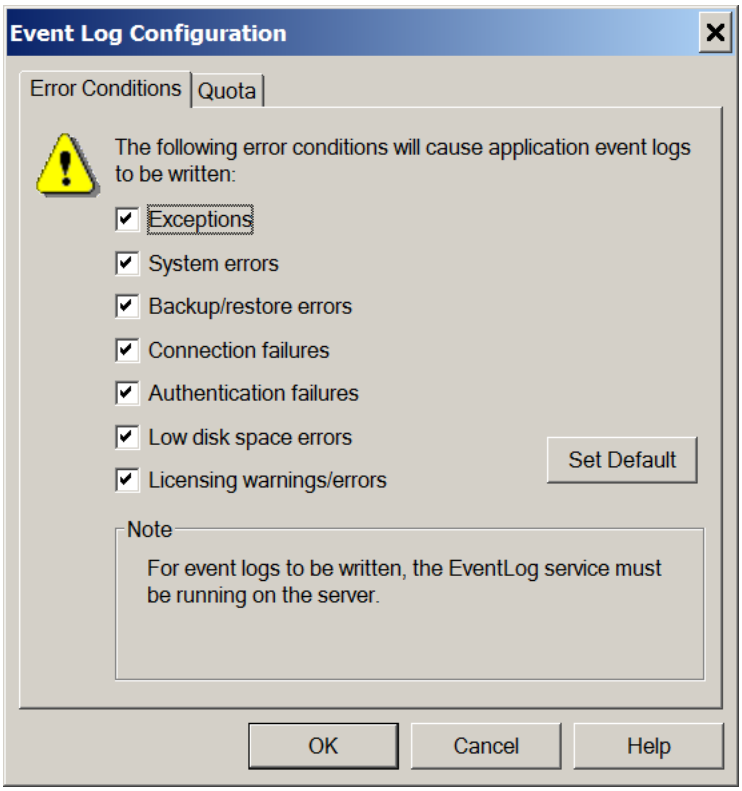


You may also send E-Mail to inform you when a user account reaches certain quota thresholds. The three thresholds are:

- Account reaches “Near quota % threshold”
- Account reaches “At quota % threshold”
- Account reaches “Over quota % threshold”.

The mail system can be set to attach user log files to the mail message, so that you can quickly identify which user accounts may be having problems or approaching quota limits.

If you choose to write event logs, you will be able to set event log options.



The errors that you select will be written to the Event Log when they occur. When you have put a check mark in the box next to each system error you want added to the log, clicking the **Set default** button will save these conditions. You can also set Quota issues that can be saved in the Event log.

Send Administrative Alerts provides the same basic options as Event Logs or as the error conditions that exist in the Mail options menu.

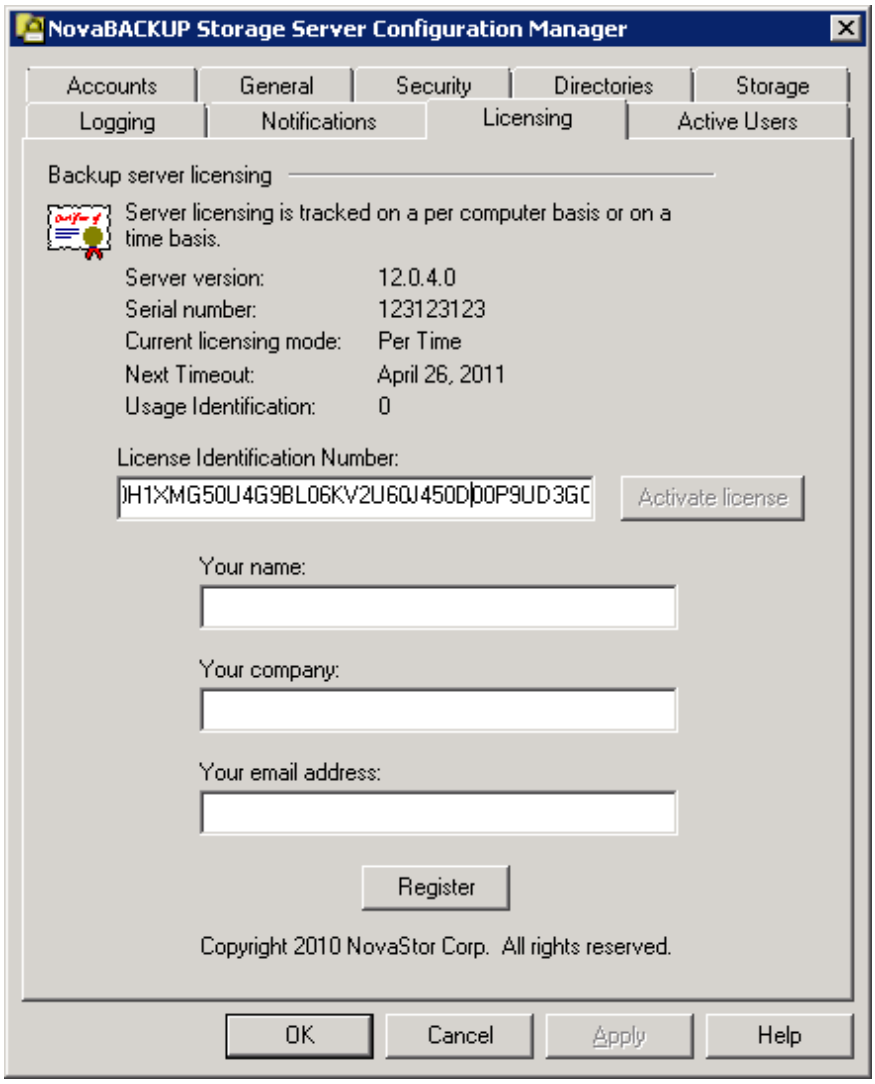
Alerts differ from notifications, because alerts are sent to the Event Log, rather than to an E-Mail address.

Licensing Tab

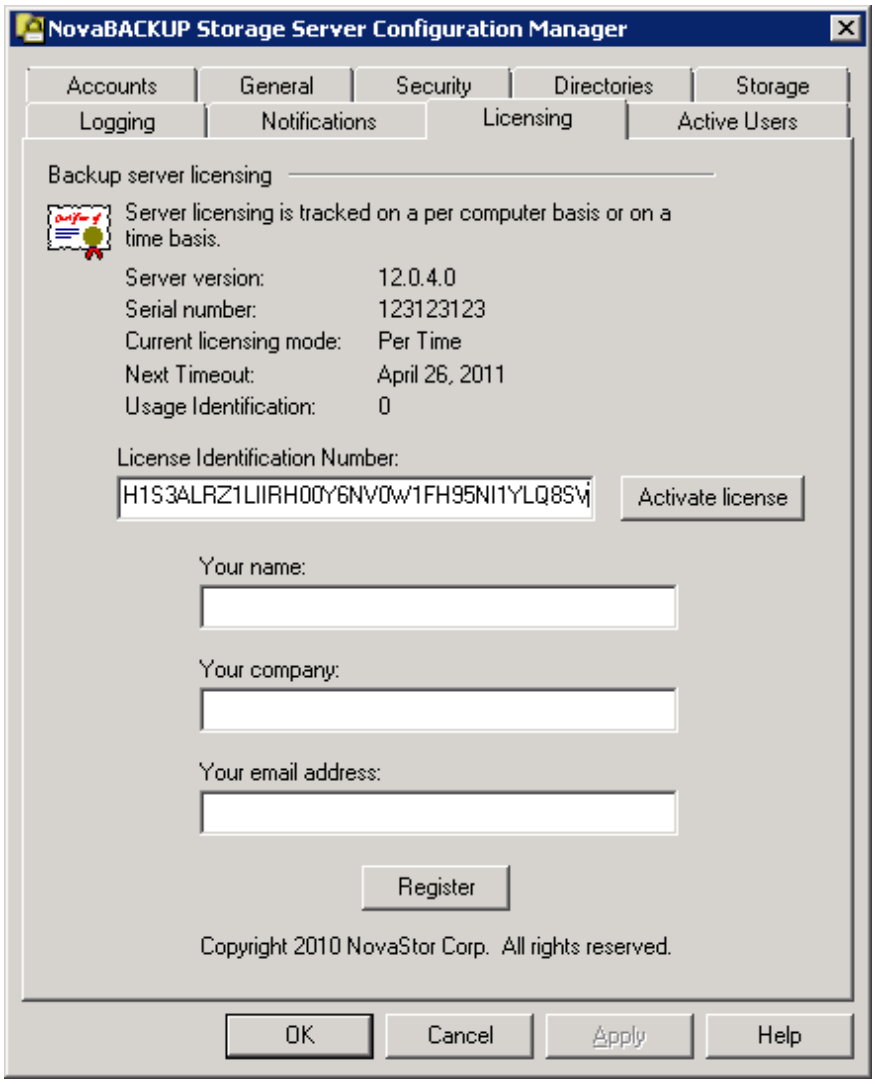
The Licensing tab is used to get information about the Storage Server and to register or renew a license. It also contains registration information. The Registration information is provided to users when they request support or request further information about your company.

Entering a license or updating to a new license:

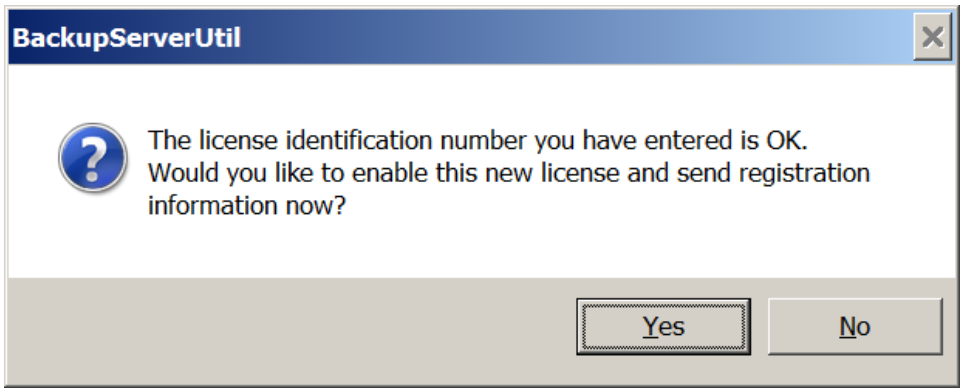
Clicking on the Licensing tab will open the licensing screen. This screen provides the Storage Server Licensing information (including current status and licensing mode) and allows you to update the license if it's expired or entering a new license. It also provides Support Information that you enter when you register the product.



If a license has expired, the **Activate License** button cannot be selected until a new license number is entered into the License Identification Number field. As seen here, **Activate** License is grayed out and cannot be selected. When a number is entered, **Activate license** can be selected.



This information will be sent to NovaStor and validated. Pressing **Activate license** will validate the license information. If validation is successful, you will see the next screen:


BackupServerUtil
The license identification number you have entered is OK.
Would you like to enable this new license and send registration information now?
Yes
No

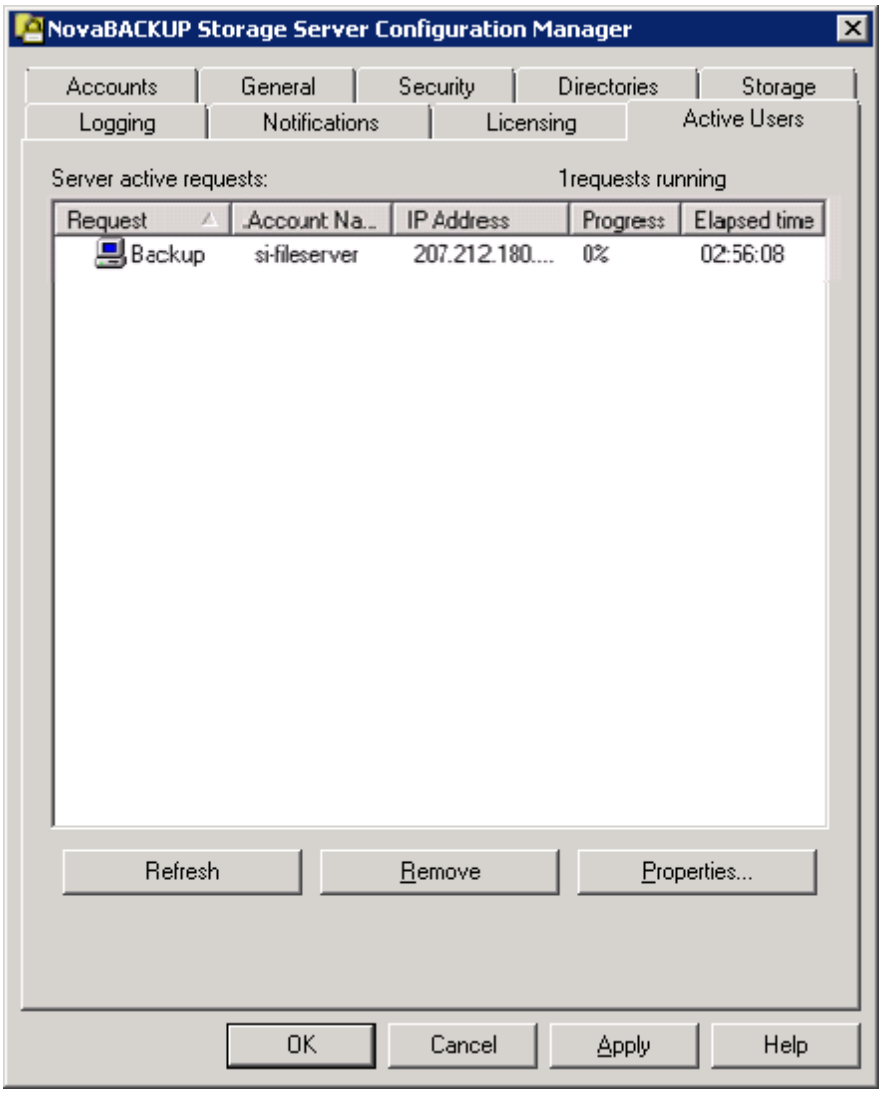
Press **yes**, and the license information will be registered with NovaStor.

Once validated and registered, the Licensing tab will show the expiration date of the current license, the server version, and other information.
The Registration data provided in the Licensing tab is also provided to your client software if a request for support is received.

Licensing information can also be entered or updated using the Remote Manager.

Active Users

The Active Users tab is primarily an informational tab that provides information about backups and current connections to the NovaBACKUP xSP Storage Server.



Tip!

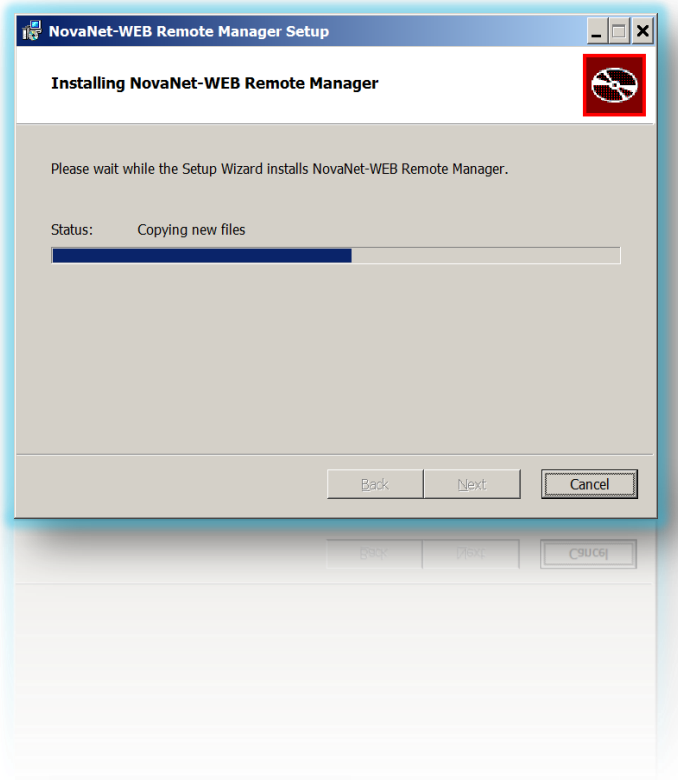
Keep in mind that this screen will only display the accounts that were connected to the server when you started the configuration manager. If an account connects while this screen is open, it has to be refreshed or close and re-open the configuration manager.

The purpose of this tab is to determine the cause of any system slowdowns or other performance issues, and to get a quick look at the current server status. If, for example, a customer reports that

a backup is going very slowly, you will be able to open **Storage Server Configuration Manager** and then open the **Active Users** tab, and you will be able to see what processes were running at the time the user reported the issue.

In this screen, you can determine the Account Name and IP Address of the users who were using the Storage Server before the Storage Server Configuration Manager was launched. You can also see the type of request the user made (backup or restore, for example), how much time has elapsed since the process started, and the percent of progress the user's request has made in completing the request.

Installing NovaBACKUP xSP Remote Manager



The NovaBACKUP xSP Remote Manager is designed to enable you to manage the NovaBACKUP xSP Storage Server(s) using a web interface. Not all management functions can be performed, because some of the management tasks require that they be done directly on the server. The Remote Manager also exposes a web service through which yu can programmatically manage your Storage Server(s).

Operation of the Remote Manager is explored in the next module.

Remote Manager can be installed on the same machine as the one onto which the Storage Server is installed, or you can install the Storage Server Remote Management Service on the Storage

Server, and install the web application/service portion on a separate web server. The Storage Server Remote Management Service will allow communication between the Storage Server and the Remote Manager.

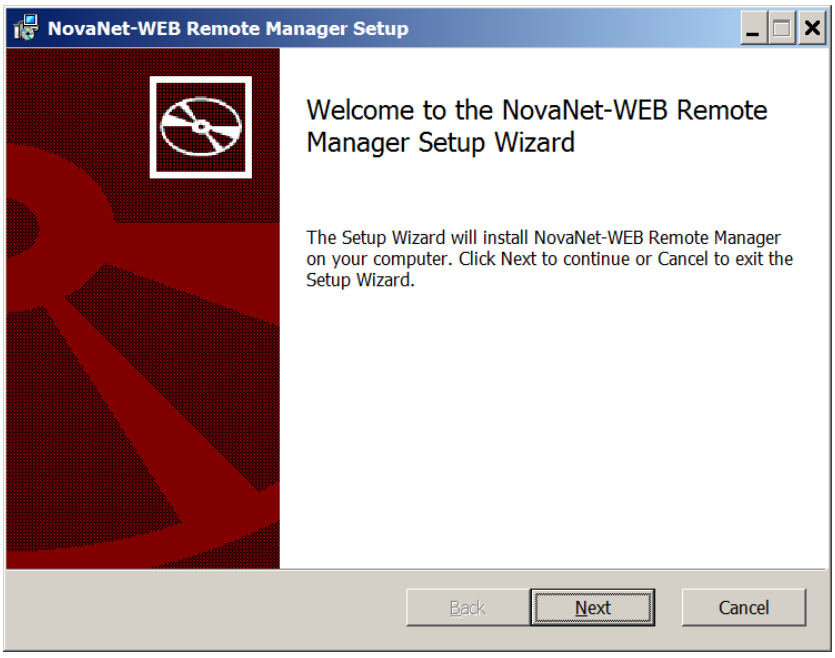
The Remote Manager enables you to perform certain functions that the NovaBACKUP xSP Configuration Manager is unable to perform. The main difference between the two modules is the ability of Remote Manager to select, configure and modify multiple Storage Servers, while the NovaBACKUP xSP Storage Server Configuration Manager can only configure the Storage Server onto which it is installed. The NovaBACKUP xSP Storage Server Configuration Manager is able to perform certain management and monitoring tasks that cannot be performed by the Remote Manager.

Minimum Requirements

- Windows Server 2003 SP2 or 2008
- .NET 3.5
- IIS *
- Connectivity to one of the following:
- Microsoft SQL 2005 SP2+
- Microsoft SQL 2008
- MySQL 5.1 with MySQL ODBD 5.1 Connector and ASP.net

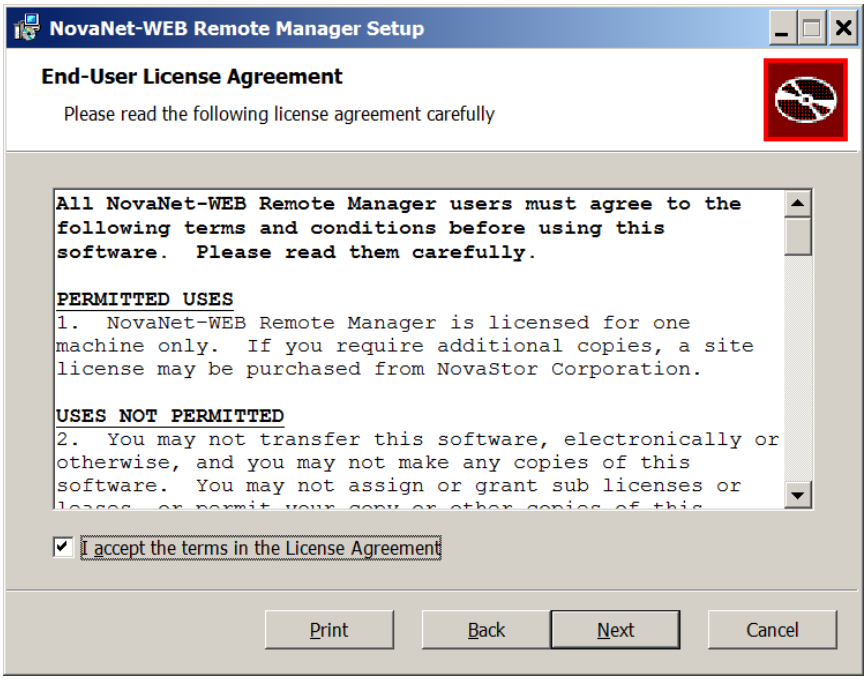
Installation

To begin installation of Remote Manager, double-click on the **setup.exe** file that is used to set up Remote Manager. This file may be called **RM_Setup.exe**. The setup process will start, and the first screen will appear:


NovaNet-WEB Remote Manager Setup
Welcome to the NovaNet-WEB Remote Manager Setup Wizard
The Setup Wizard will install NovaNet-WEB Remote Manager on your computer. Click Next to continue or Cancel to exit the Setup Wizard.
Back
Next
Cancel

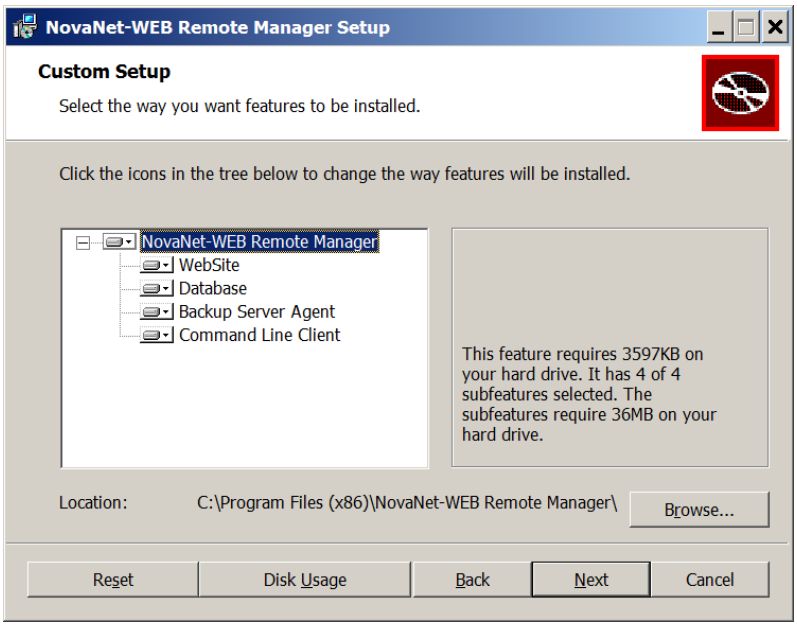
Step 1

Click **Next** to advance to the License Agreement screen:


NovaNet-WEB Remote Manager Setup
End-User License Agreement
Please read the following license agreement carefully
All NovaNet-WEB Remote Manager users must agree to the following terms and conditions before using this software. Please read them carefully.
PERMITTED USES
1. NovaNet-WEB Remote Manager is licensed for one machine only. If you require additional copies, a site license may be purchased from NovaStor Corporation.
USES NOT PERMITTED
2. You may not transfer this software, electronically or otherwise, and you may not make any copies of this software. You may not assign or grant sub licenses or
I accept the terms in the License Agreement
Print
Back
Next
Cancel

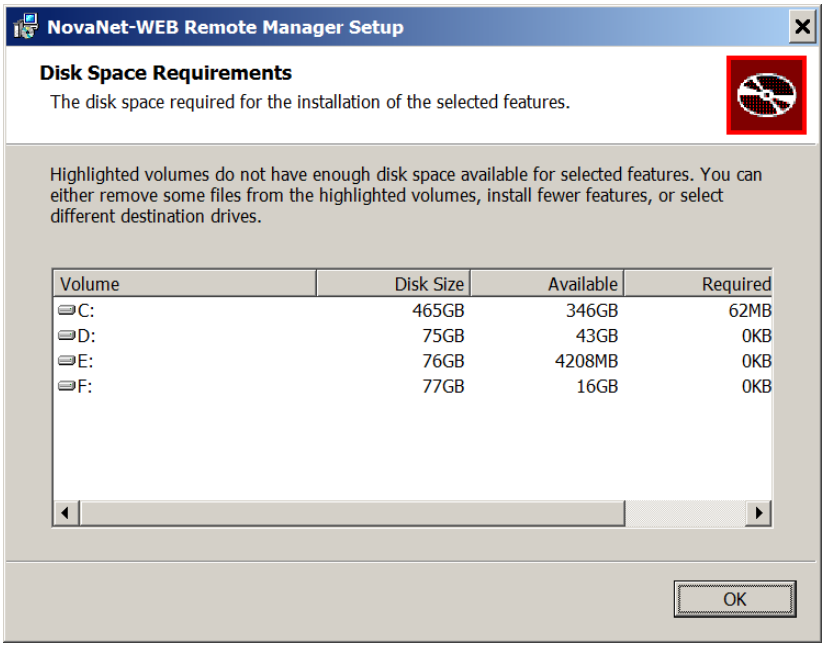
Step 2

If you have read and accept the license agreement, click the check box next to the words 'I accept the terms in the License Agreement', and click the **Next** button to advance to the **Custom Setup** screen:


NovaNet-WEB Remote Manager Setup
Custom Setup
Select the way you want features to be installed.
Click the icons in the tree below to change the way features will be installed.
NovaNet-WEB Remote Manager
WebSite
Database
Backup Server Agent
Command Line Client
This feature requires 3597KB on your hard drive. It has 4 of 4 subfeatures selected. The subfeatures require 36MB on your hard drive.
Location:
C:\Program Files (x86)\NovaNet-WEB Remote Manager\
Browse...
Reset
Disk Usage
Back
Next
Cancel

Step 3

The **Custom Setup** screen allows you to choose the drive and directories where the Remote Manager will be installed. The **Disk Usage** button opens a screen (shown below) that shows you the drives on your server and the available space. After reviewing the Disk Usage screen, you may return to the Custom Setup screen by clicking **ok**.

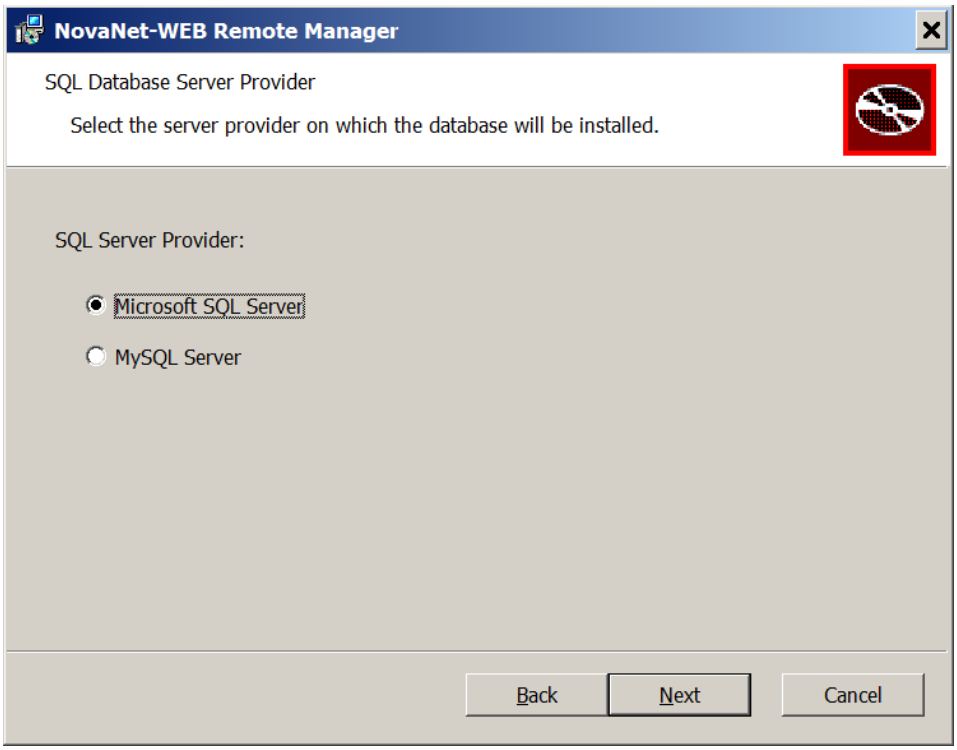


Step 4

In addition to providing a default location for the Remote Manager files, you can also browse for a target directory.

NovaStor recommends that you use the C: drive for storing the Remote Manage files.

When you have selected the location for your Remote Manager files, click **next**, and the SQL Database Server Provider selection screen opens.



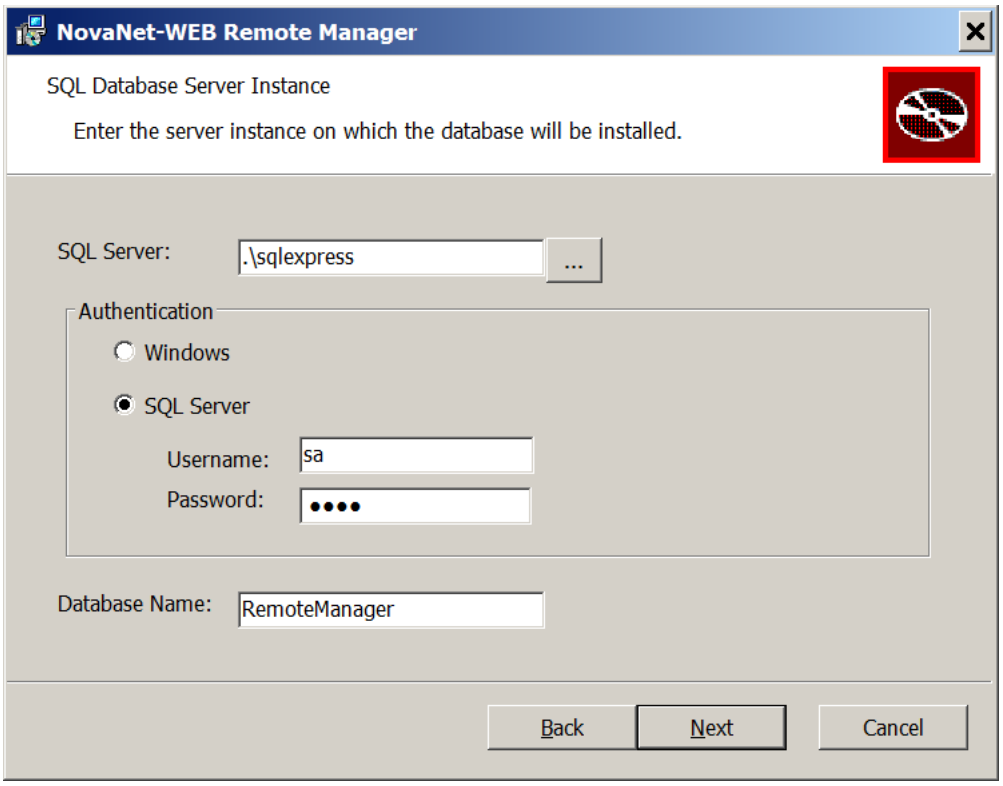
Step 5

Click on the appropriate button and press **next**, to advance to the Database Server Instance screen. *Note: NovaStor may discontinue support for MySQL in upcoming versions. It is strongly recommended that you use SQL Server as the database used with NovaBACKUP xSP.* NovaStor does not recommend the use of SQL Express for more than 25-50 users because the size of a SQL Express database is limited to 4 GB.

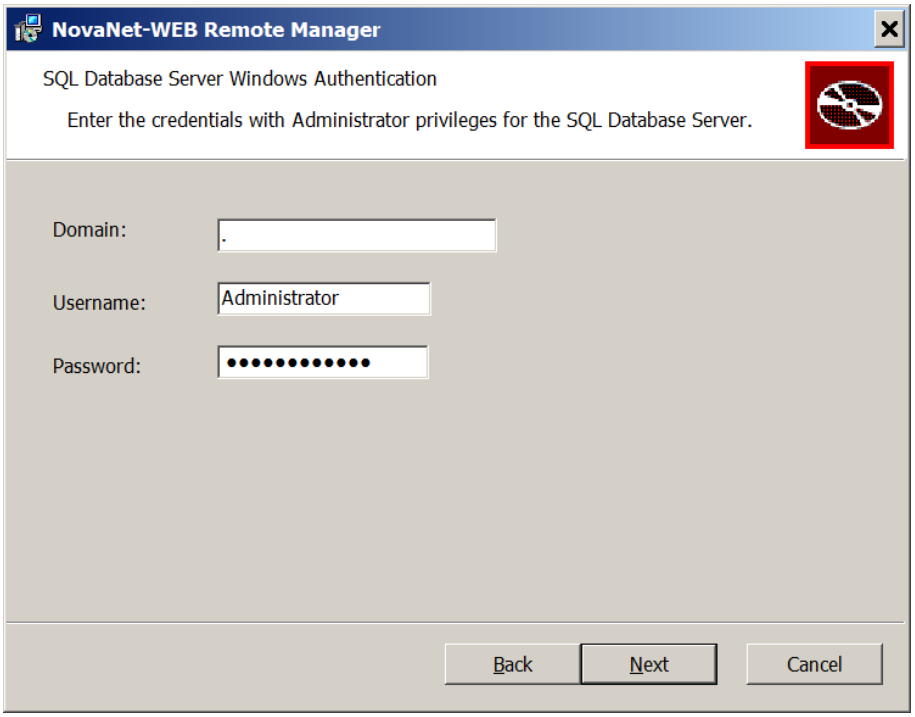
The Server Instance selection screen opens. In this screen, you define the SQL Server instance and location, the Database Name for the Remote Manager database, and the Authentication method. In the graphic above, **.\sqlexpress** indicates that the database is local (the '.' means local), and that the database being used is a SQL Express database.

Note also that the recommended user name for the SQL Server authentication is sa. The password is the one used to get access to the SQL instance you have selected when you set up your SQL server.

After you have entered the date required by this screen, press next. The Windows Authentication screen on the next page will open:



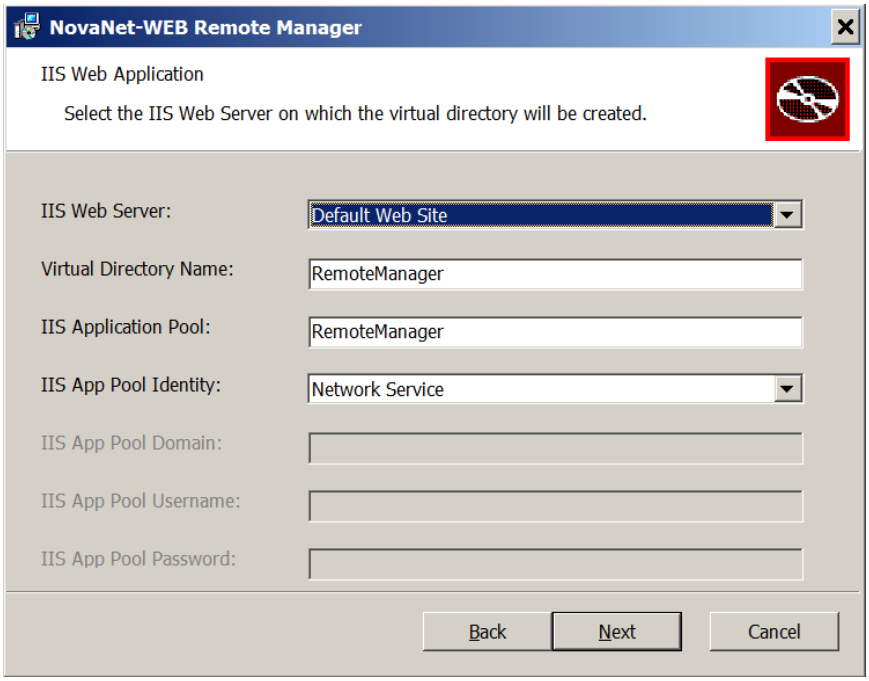
Step 6



Step 7

The domain name is optional, in the case above we've used a period (which means 'local instance' to SQL Server). The Username is the one used to log in to Windows, and the Password is the password used to access Windows.

Once the three lines of data are completed, press **Next** to open the IIS Web Application configuration screen:

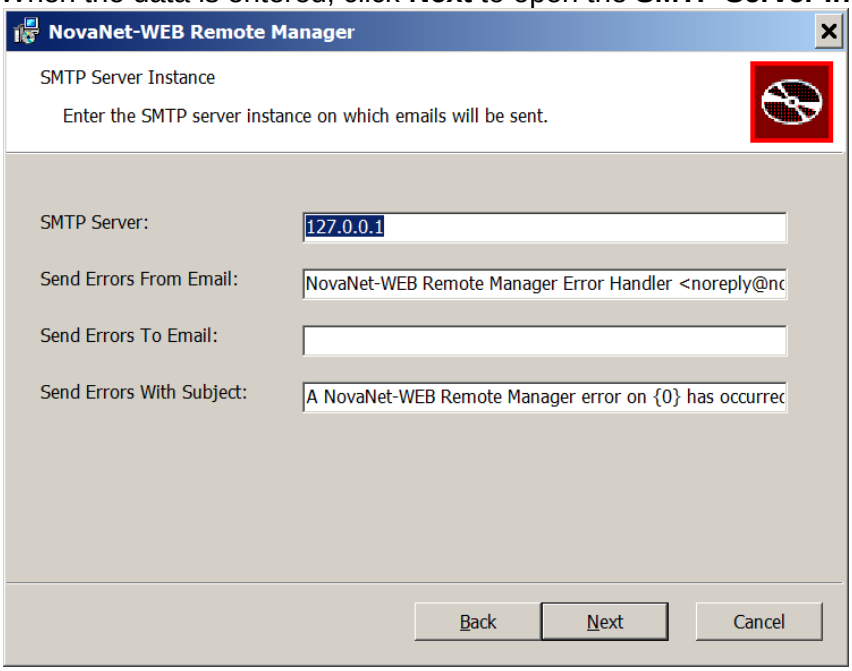


Step 9

Tip!

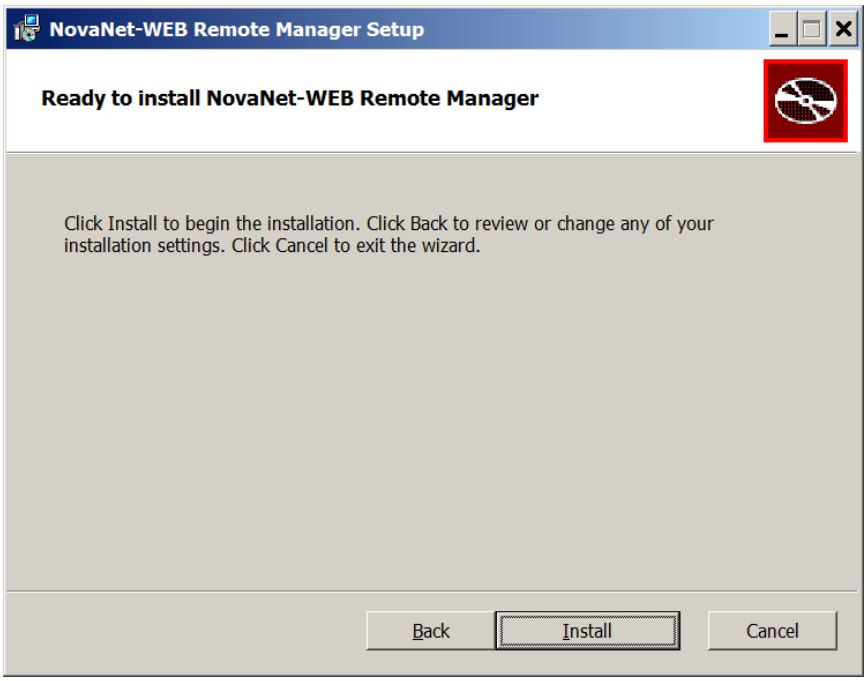
Default values are automatically entered by the installer. If your values are different, or IIS settings are different from the defaults, enter them in to the IIS Web Server screen.

When the data is entered, click **Next** to open the **SMTP Server Instance** screen:



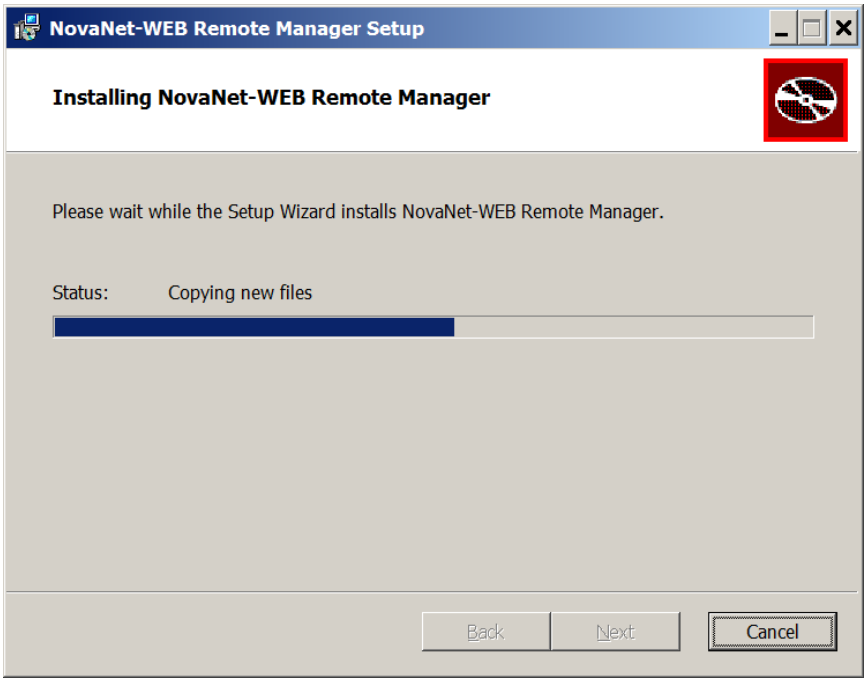
Step 10

In the **SMTP Server Instance** screen, the location of the SMTP Server, and default message headers are shown. In this case, the local host address (127.0.0.1) is shown. You may modify the subject line and the E-Mail headers on this screen. Once these settings are completed, press next, and the Install screen opens:


NovaNet-WEB Remote Manager Setup
Ready to install NovaNet-WEB Remote Manager
Click Install to begin the installation. Click Back to review or change any of your installation settings. Click Cancel to exit the wizard.
Back
Install
Cancel

Step 12

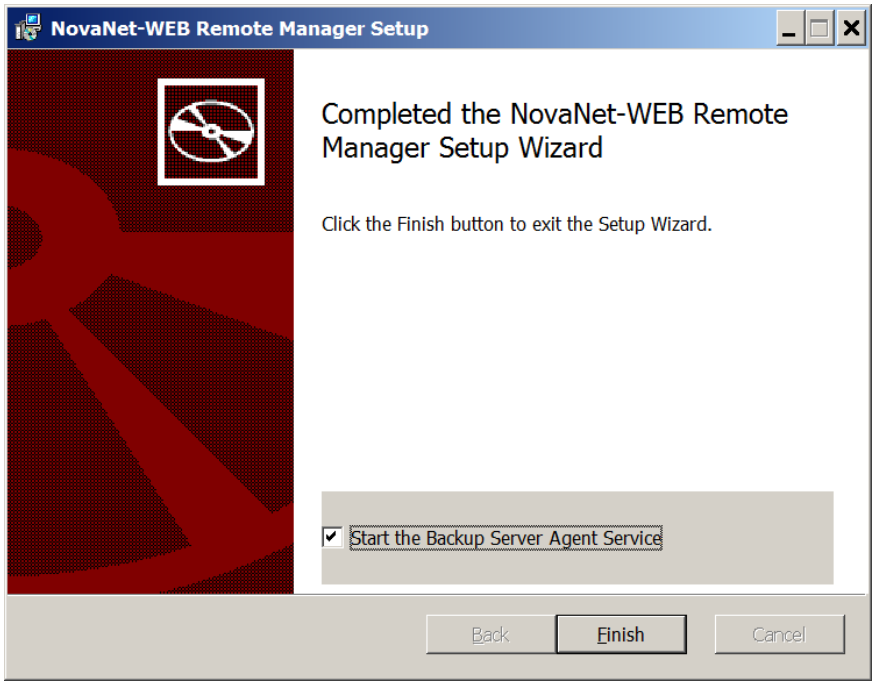
Pressing **Install** starts the NovaBACKUP xSP Remote Manager installation.



Step 11

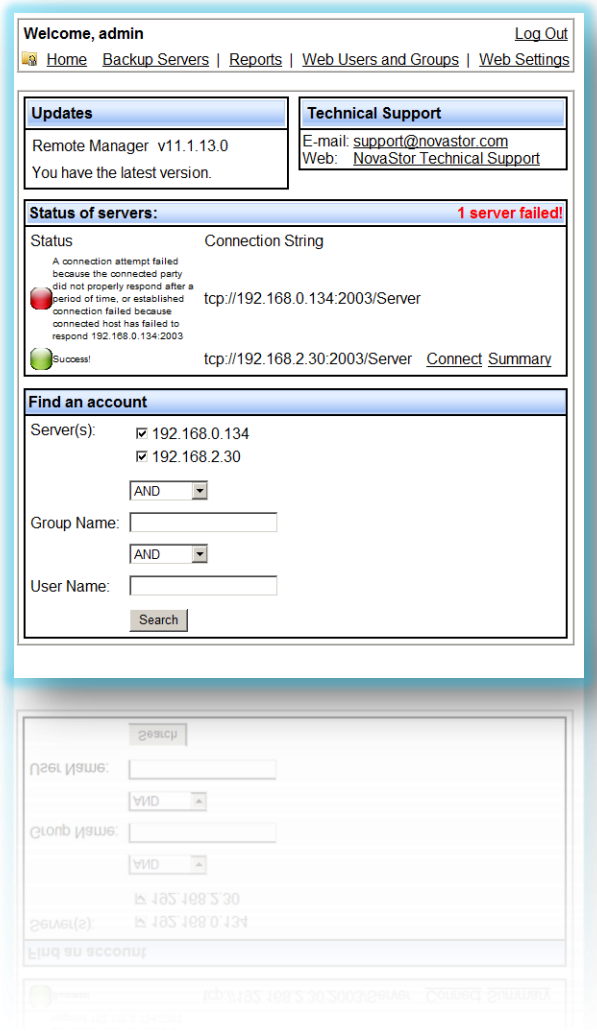
Installation usually takes a few seconds. Once the installation is complete, a 'finish' screen opens. The one option is to **Start the Backup Server Agent Service**. The default is to start the service when you press the Finish button. If you choose not to start the Backup Server Agent Service, uncheck the box adjacent to this option.

Once you have reviewed and accepted (or not) the **Start the Backup Server Agent Service** option, press **Finish** to complete the installation of Remote Manager.


NovaNet-WEB Remote Manager Setup
Completed the NovaNet-WEB Remote Manager Setup Wizard
Click the Finish button to exit the Setup Wizard.
Start the Backup Server Agent Service
Back
Finish
Cancel

Step 13

NovaBACKUP xSP Remote Manager



The NovaBACKUP xSP Remote Manager can potentially be one of the most important elements in NovaBACKUP xSP. It is through the Remote Manager that an administrator, or other person authorized to access the Remote Manager, can make the critical changes to the entire NovaBACKUP xSP system. The Remote Manager can be used as a web based administration tool for the Storage Server (or Storage Servers).

The Remote Manager also allows you to manage your Storage Server(s) through programs that you write or modify to instruct the Storage Server(s) to perform certain functions in ways that you program.

The Remote Manager enables you to select, set up, add or remove Storage Servers.

The Remote Manager is also the web management gateway for most of the NovaBACKUP xSP Server, and client, settings.

Remote Manager can be installed on the same machine hosting the Storage Server. Alternatively, the Remote Management Service (which communicates to the Storage Server) can be installed on the Storage Server, and the web application/service portion of Remote Manager can be installed onto a separate web server.

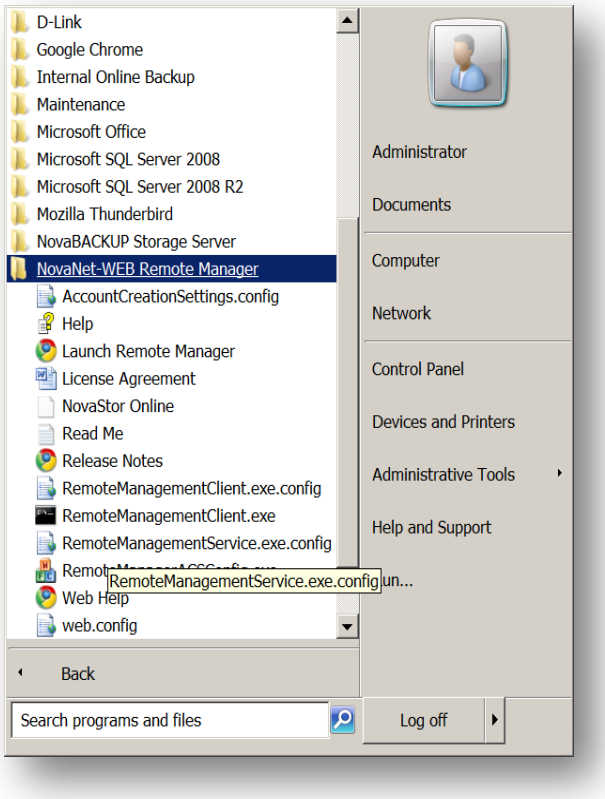
Predefined settings and default values

Predefined values for Account Creation Settings are stored in the AccountCreationSettings.config file. The default location for this .config file is C:\Program Files\NovaNet-WEB Remote Manager\Server\AccountCreationSettings.config. The file can be opened in Notepad. WordPad or Word can also be used, but formatting must be turned off. A GUI will be opened, allowing you to edit the AccountCreationSettings.config file, via a utility located in Start>All Programs>NovaNET–WEB Remote Manager>Remote Manager ACS Config.exe

Starting the NovaBACKUP xSP Remote Manager

Like many of the features of NovaBACKUP xSP, there are often multiple ways to get the same result. For example, launching Remote Manager can be done in a variety of ways:

From the **Start** Menu, move your mouse over **All Programs**. The Start Menu will open a list of all the programs installed onto your server. Click on **NovaNET-Web Remote Manager**, and click on **Launch Remote Manager**.

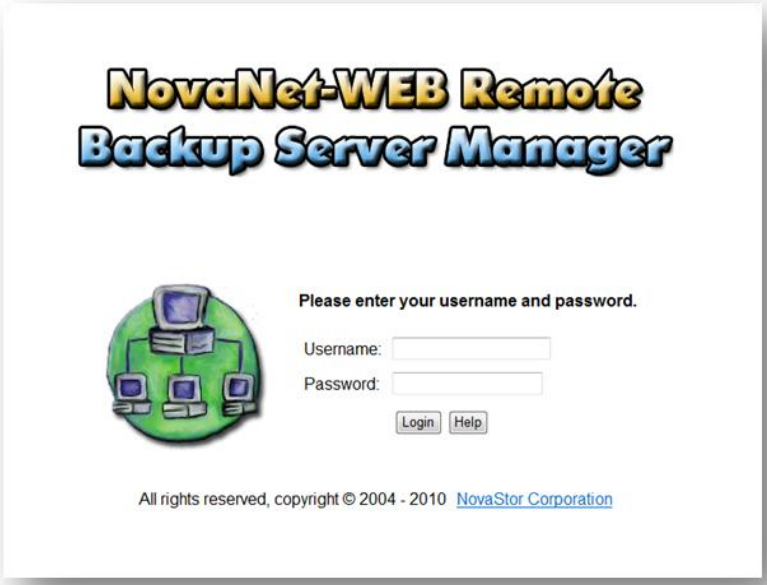


Your default browser will launch if it isn't already running, and the Remote Manager Login screen will open.

There are other ways that you can get to the Remote Manager login screen from within a browser:

- Type the IP address of the Storage Server, and follow with /remotemanager, then pressing the Enter key. (For example, 192.168.2.30/remotemanager)
- If you're using the machine on which the Storage Server has been installed, type **localhost/remotemanager**, then press the **Enter** key
- From within the network on which the backup server resides, you can also type: /serverIPaddress/remotemanager, then press the **Enter** key

After you press the Enter key, the Remote Manager Login screen appears:



The default Username and Password is **admin / admin**

When you enter your Username and Password, and click on Login (or just press Enter), the login will be verified and, if it matches the data on file at the server, the Remote Manager Home screen will open. The startup process may take a minute or more, depending on the speed of your Storage Server, the amount of data that is currently being backed up on the server, the amount of other processes being performed on your server, and the speed of your connection to the Internet.

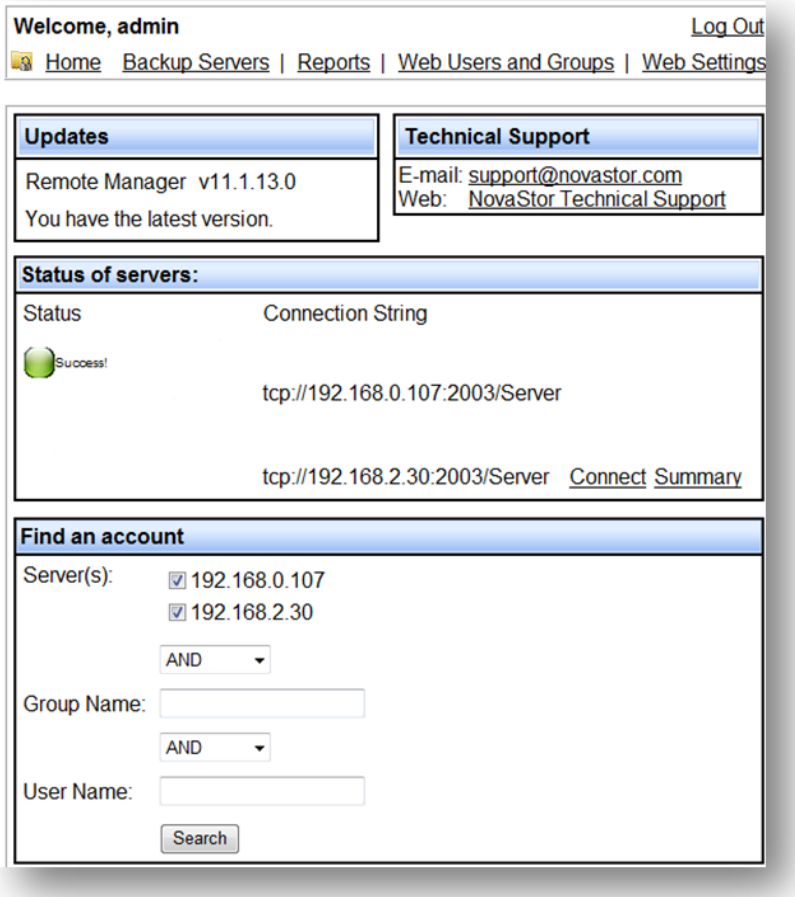
Tip!

If you see a red warning message, be aware this is normal when not browsing using HTTPS protocol.

Remote Manager Home Screen

The Home Screen provides five submenus.

- *Home*
- *Backup Servers*
- *Reports*
- *Web Users and Groups*
- *Web Settings*



The Remote Manager Home Screen provides status information. The current version of Remote Manager is shown, along with information about whether or not the version of Remote Manager that is being used is the current version. In this example, 'You have the latest version' indicates that there is no newer version. When Remote Manager starts, it checks the NovaStor site to determine the latest version.

The addresses for Technical Support are shown in the box to the right of the Updates box on the Home page.
The Server Status indicates the Storage Servers that have been installed, and the status of the

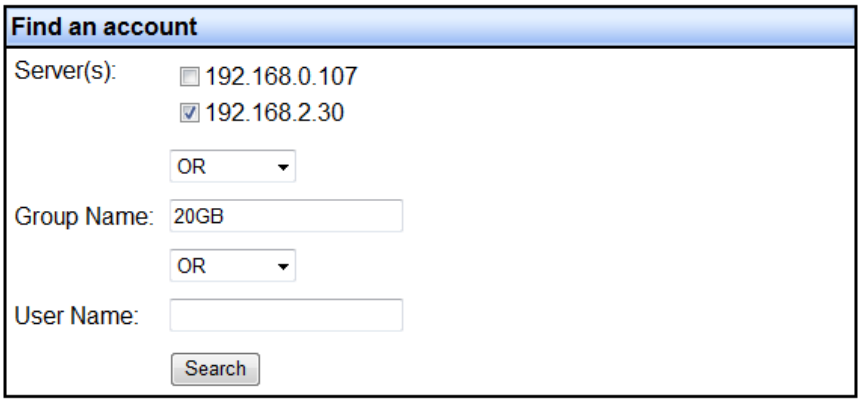
servers. Note that in this example, one of the Storage Servers 'failed.' At the top of the 'Status of servers:' box, '1 server failed!' appears in Red letters. At the left, a red dot, to the left of the failed server also indicates, at a glance, that a server is dead. The word 'dead', in this case, means that the backup server is unreachable. In this case, the original installation was performed at a different location from the one where this manual was written. The original backup server was inaccessible from the location where this document was written. When Remote Manager tried to reach this unreachable server, it was unable to reach the server and reported that the server failed.
(This doesn't necessarily mean that the server failed, however, it may just be unreachable).

Finding an account
NovaBACKUP xSP enables the person using Remote Manager to find an account. This is useful for troubleshooting; it's helpful for modifying the properties of customer accounts. **Find an account** provides the ability to select the server(s) to be scanned for account information.

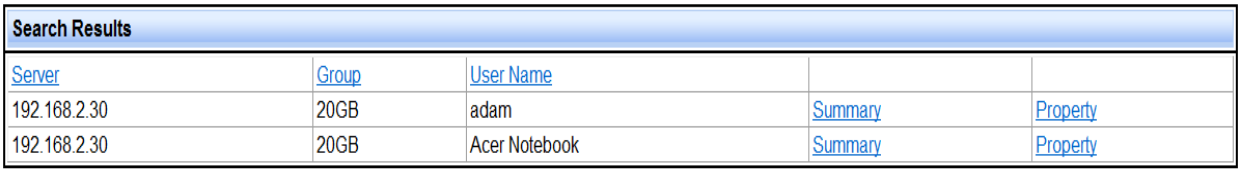
Additionally, the Boolean operators, AND, OR, AND NOT provide the flexibility to effectively target your search. Once the parameters for your search have been entered, pressing the Search button will launch the search.

In this example, a search has been defined to search on only one Backup Server (the only one currently active). We knew both the group name (20GB) and the specific user name (Acer Notebook). Please note that in the current version of NovaBACKUP xSP Remote Manager, the Boolean Operators are not active, both the– the **AND** and the **AND NOT** conditions. Also – if a search definition does not find any matching data, the Remote Manager may sometimes yield data from the last search that resulted in account data being located.

In the example on the next page, a search was defined for all accounts in the 20GB group:



The search resulted in the two accounts previously set up in the 20GB group:

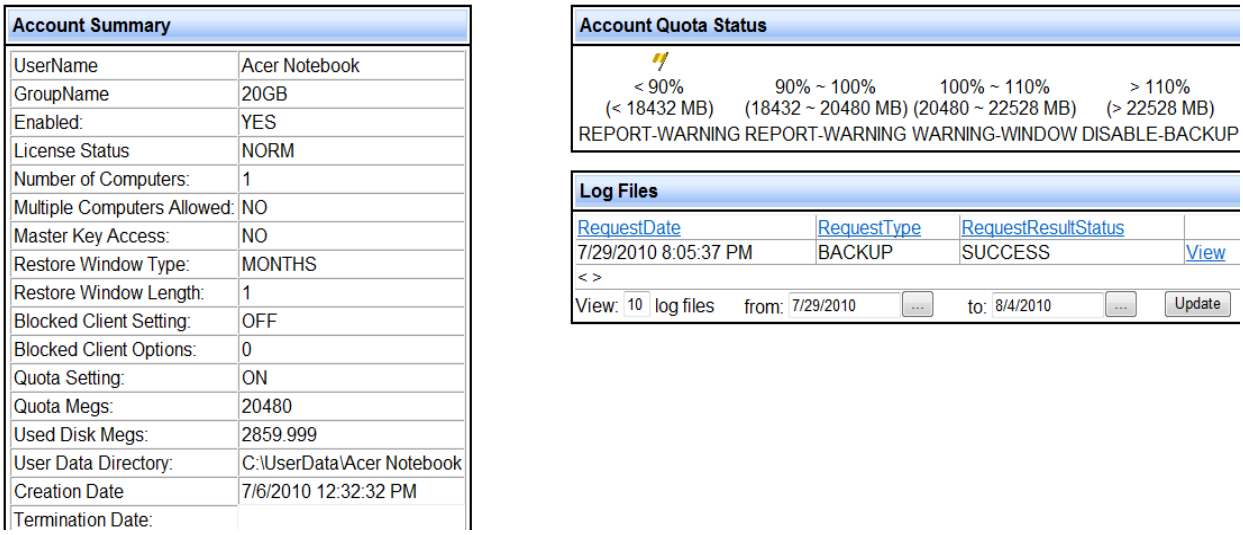


The search results provide the local address of the server, the group to which the user belongs, the

name of the user, and a Summary and Property link.

Summary provides a screen with overall information about the user's account settings, the location of the log files and the notification settings for quota status.

This summary screen was produced for the user Acer Notebook:



Account Summary

UserName	Acer Notebook
GroupName	20GB
Enabled:	YES
License Status	NORM
Number of Computers:	1
Multiple Computers Allowed:	NO
Master Key Access:	NO
Restore Window Type:	MONTHS
Restore Window Length:	1
Blocked Client Setting:	OFF
Blocked Client Options:	0
Quota Setting:	ON
Quota Megs:	20480
Used Disk Megs:	2859.999
User Data Directory:	C:\UserData\Acer Notebook
Creation Date	7/6/2010 12:32:32 PM
Termination Date:	

Account Quota Status

< 90% (< 18432 MB)	90% ~ 100% (18432 ~ 20480 MB)	100% ~ 110% (20480 ~ 22528 MB)	> 110% (> 22528 MB)
REPORT-WARNING	REPORT-WARNING	WARNING-WINDOW	DISABLE-BACKUP

Log Files

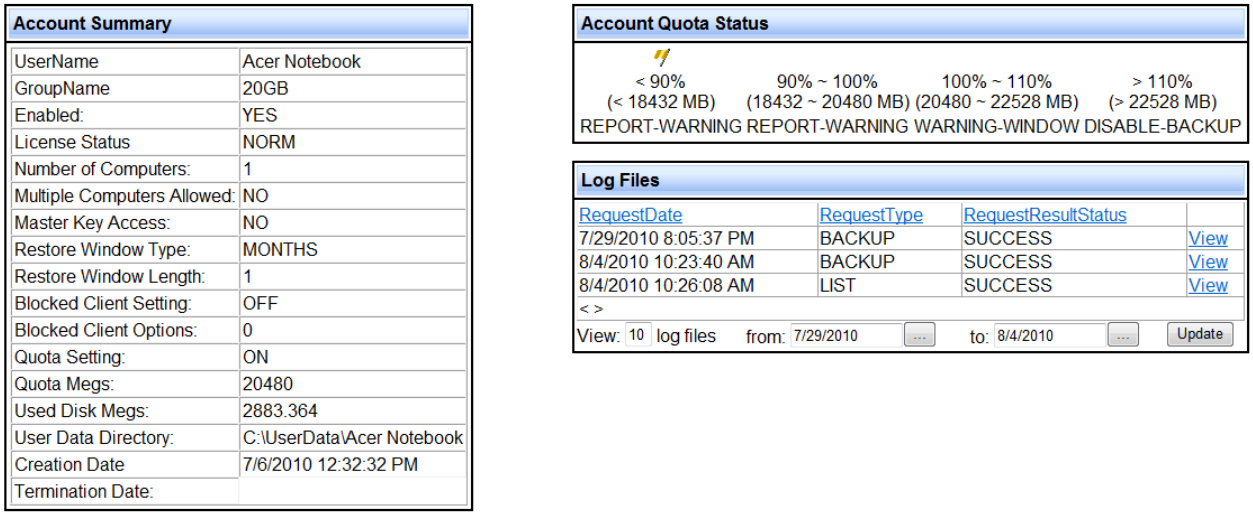
RequestDate	RequestType	RequestResultStatus	
7/29/2010 8:05:37 PM	BACKUP	SUCCESS	View

< >

View: 10 log files from: 7/29/2010 ... to: 8/4/2010 ... Update

The Log Files screen gives an overview of the user's backup or restore activity and provides a status report. It enables you to define the number of results and the time period for which you wish to review the log files.

The Log Files screen shows all backup, restore, or list activities of the selected user. In the next screen, you will see that another backup was performed, and that the user viewed a list of the files that was stored on the Backup Server.



Account Summary

UserName	Acer Notebook
GroupName	20GB
Enabled:	YES
License Status	NORM
Number of Computers:	1
Multiple Computers Allowed:	NO
Master Key Access:	NO
Restore Window Type:	MONTHS
Restore Window Length:	1
Blocked Client Setting:	OFF
Blocked Client Options:	0
Quota Setting:	ON
Quota Megs:	20480
Used Disk Megs:	2883.364
User Data Directory:	C:\UserData\Acer Notebook
Creation Date	7/6/2010 12:32:32 PM
Termination Date:	

Account Quota Status

< 90% (< 18432 MB)	90% ~ 100% (18432 ~ 20480 MB)	100% ~ 110% (20480 ~ 22528 MB)	> 110% (> 22528 MB)
REPORT-WARNING	REPORT-WARNING	WARNING-WINDOW	DISABLE-BACKUP

Log Files

RequestDate	RequestType	RequestResultStatus	
7/29/2010 8:05:37 PM	BACKUP	SUCCESS	View
8/4/2010 10:23:40 AM	BACKUP	SUCCESS	View
8/4/2010 10:26:08 AM	LIST	SUCCESS	View

< >

View: 10 log files from: 7/29/2010 ... to: 8/4/2010 ... Update

The **View** command generates a report on the transaction with the User during the listed session. Here is the report for the **View** request shown in the figure above:

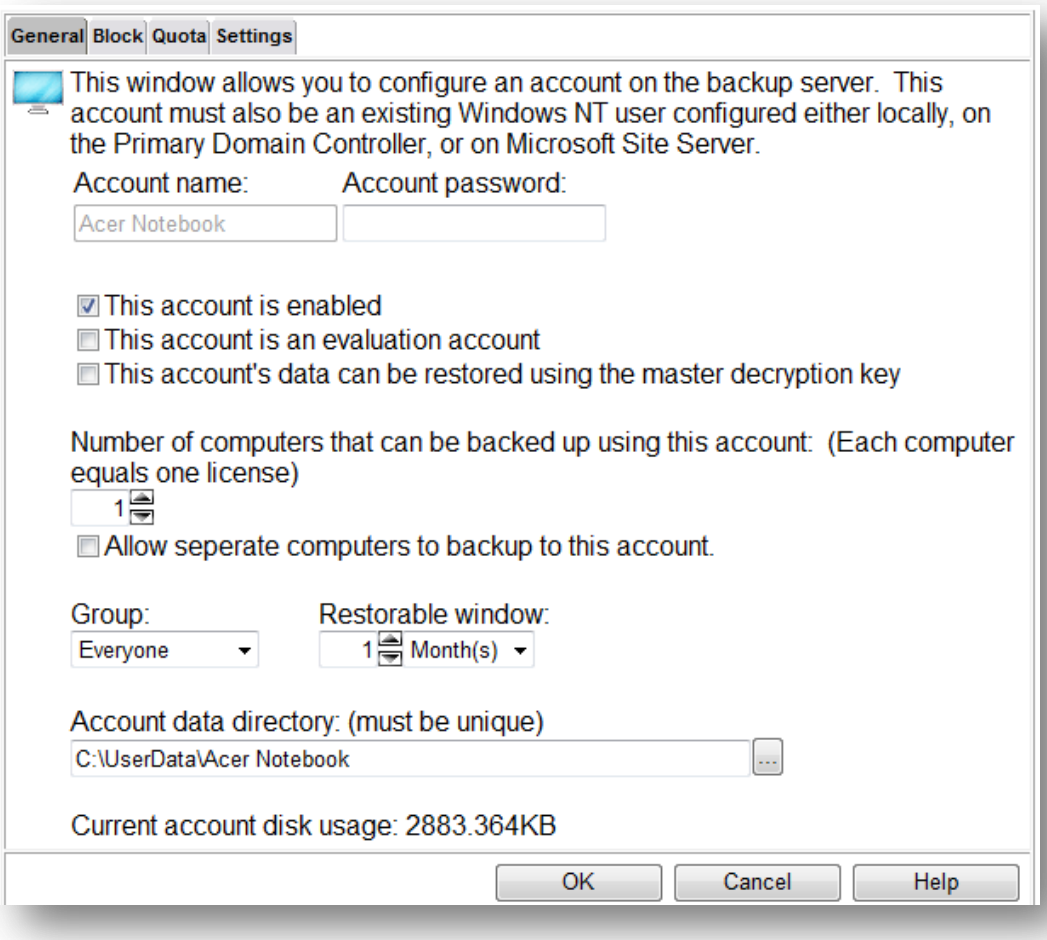
```
[04-Aug-[Up One Level]08] PROT: Server WIN-2JBPOG2QMMF Version 11.1.12.0
[04-Aug-2010:10:26:08] PROT: Negotiating protocol version
[04-Aug-2010:10:26:08] PROT: Client version 11.0.0.1_28 received
[04-Aug-2010:10:26:08]
[04-Aug-2010:10:26:08] USRR: User authentication request received
[04-Aug-2010:10:26:08] Local computer name: KINGFISH\KINGFISH
[04-Aug-2010:10:26:08] Access granted for: Acer Notebook
[04-Aug-2010:10:26:08]
[04-Aug-2010:10:26:08] **INFO: using database profile; user profile not found in data directory: C:\UserData\Acer Notebook\us
[04-Aug-2010:10:26:08] ENCR: Protocol encryption - 192-bit Triple-DES
[04-Aug-2010:10:26:08] ENCR: Data transmission/file storage encryption - 128-bit AES
[04-Aug-2010:10:26:08]
[04-Aug-2010:10:26:08] LCSR: Client account type - Normal
[04-Aug-2010:10:26:08]
[04-Aug-2010:10:26:08] SLSR: Request for system list received from client
[04-Aug-2010:10:26:08] Returned system list:
[04-Aug-2010:10:26:08] KINGFISH:\\KINGFISH\C
[04-Aug-2010:10:26:08]
[04-Aug-2010:10:26:08] QUIT: Close message received from client
[04-Aug-2010:10:26:08]
```

Note that everything between the client (user) and the server used 128-bit AES or 192-bit Triple DES encryption.

The Account Property Screen

The Search Results that we reviewed earlier found two results of a search for users. In addition to making a Summary screen available, the other option is **Properties**. This screen is opened by clicking on **Properties** in the Search Results screen. In this example, we'll look at the **Properties** screen for the Acer Notebook account.

The **Properties** screen for this account looks like this:


General
Block
Quota
Settings
This window allows you to configure an account on the backup server. This account must also be an existing Windows NT user configured either locally, on the Primary Domain Controller, or on Microsoft Site Server.
Account name:
Account password:
Acer Notebook
This account is enabled
This account is an evaluation account
This account's data can be restored using the master decryption key
Number of computers that can be backed up using this account: (Each computer equals one license)
1
Allow seperate computers to backup to this account.
Group:
Everyone
Restorable window:
1
Month(s)
Account data directory: (must be unique)
C:\UserData\Acer Notebook
Current account disk usage: 2883.364KB
OK
Cancel
Help

There are four tabs in the **Properties** screen: General, Block, Quota and Settings.

The General Tab is locked in to the selected user account – you are not able to add an account in this screen. Remote Manager provides an account creation screen that allows new user accounts to be created.

However, most other parameters can be modified on this General screen.

The Block Tab allows you complete control over the items that can be blocked by the Backup Server. The first two items – **Use the group blocking options for this account**, and **Do not apply any blocking options for this account** enable you to apply or not apply pre-defined blocking options. All other blocking options are grayed out, and not selectable, when either of these options are selected. The third option, **Use custom blocking options for this account**, opens the extensive list of blocking options that will be applied exclusively to this user account. Blocking selected options provides the user with only those capabilities that the administrator wants to provide. These options can be unblocked when desired. (For example, a user whose account has expired may be blocked from making backups, but not from restoring data, or blocked by blocking the Destination Tab while the account is expired. When the account becomes current, these blocks can be removed).

The Quota Tab
This tab enables you to choose to apply the quota settings for the group to which the user accounts are a member. It also enables you to 'not apply' these group quota settings. This would give the user an unlimited amount of storage space. (It may be useful if, for example, an employee in a 20GB group is promoted to CEO.)

The third option is to use Custom Quota Settings for this account. When this option is selected, the grayed out area of the screen will become selectable. In this screen you can define a new quota and select the user notifications for near, at, and over quota. You can also specify functions when these levels are reached.

The Settings Tab displays the settings already created for this account. It allows you to create a new setting, to edit an existing setting, or to delete a setting.

The server currently maintains a collection of settings the admin has added (if any) server-side as a 'remote setting' for the client to pick up. This is accomplished by sending the client a file called ClientSettings.ini when the client requests it. The convention has been to include a [settings] section with settings to follow using the typical .ini file format:

<label> = <value>

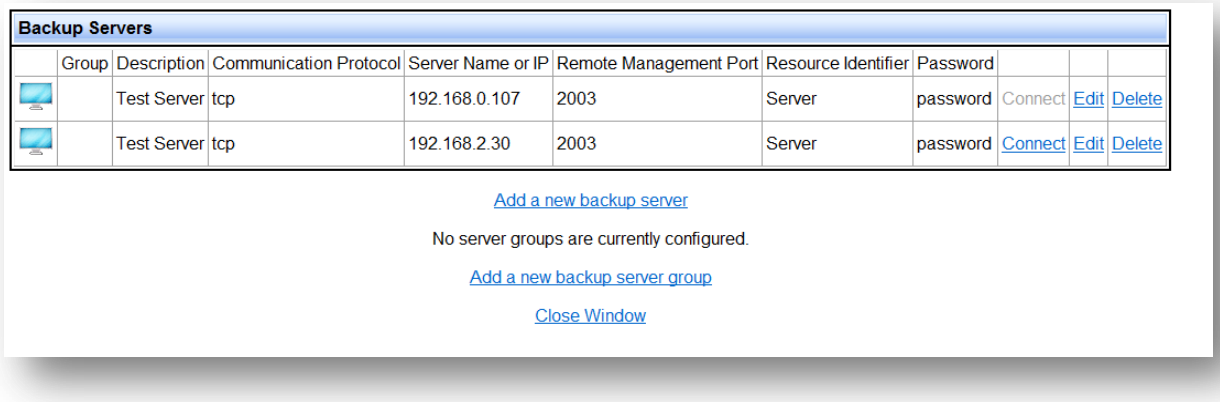
These settings are listed in the Appendix to this User Guide.

Once the property screen has been reviewed and changes made, click OK to save the properties and return to the Search Results page, or Cancel to discard changes and return to the Search Results page.

The options for the Account Property menu are explored in more detail in the Account Setup section of this User Guide.

Backup Servers

The Backup Servers screen provides a list of Backup Servers managed by NovaBACKUP xSP. The screen looks something like this:



In addition to showing the Description of the server, it also provides the name or IP address, the communication protocol, the management port, and the status of the server. (If the server is not online, the 'connect' option will be grayed out.

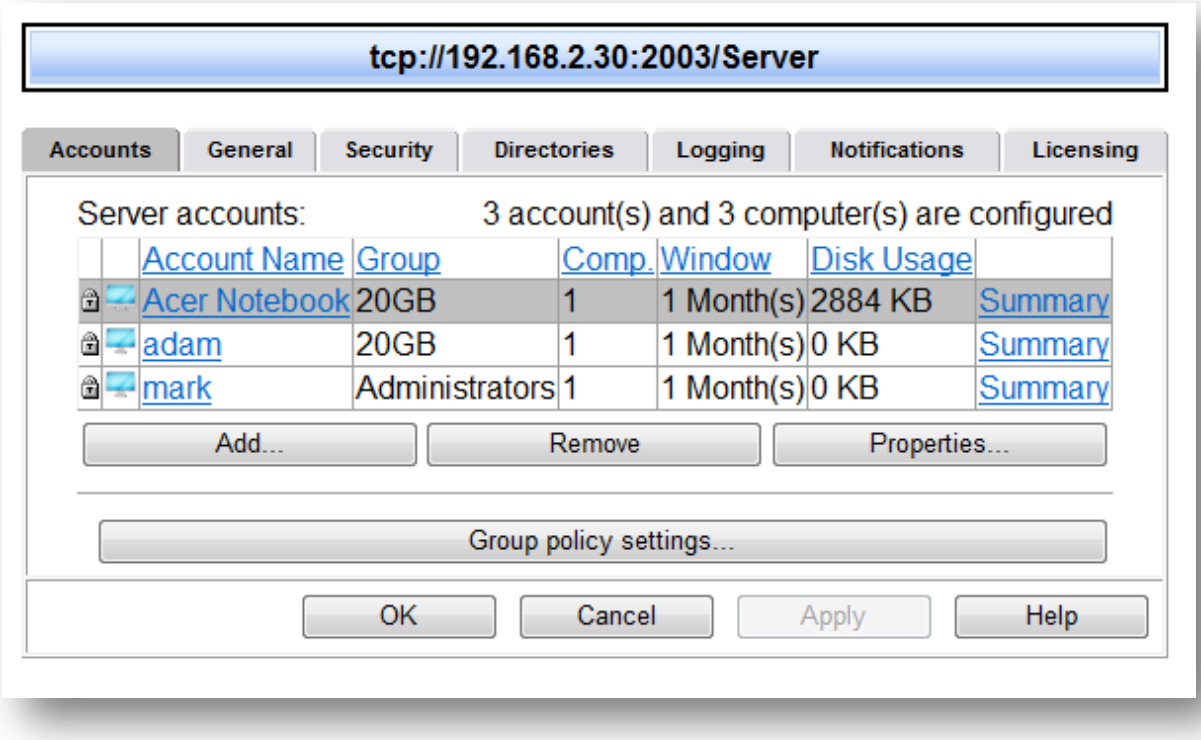
Additionally, you can Connect to a server, and can also Edit the server's settings or delete the server. To perform any of these functions, click on the available option desired.

The Backup Servers screen also allows you to Add a Storage Server, Add a new backup server group, to view the status of an already configured backup server group, or to close the window. These options will be explored after Connect and Edit are examined.

Connecting to a Storage Server

You can connect to a Storage Server in a few ways. Perhaps the easiest way is the one we just defined – by opening Remote Manager and selecting Backup Servers, then clicking on **Connect**, you will be connected to the Storage Server you selected. You can also connect to the Storage Server using an FTP connection.

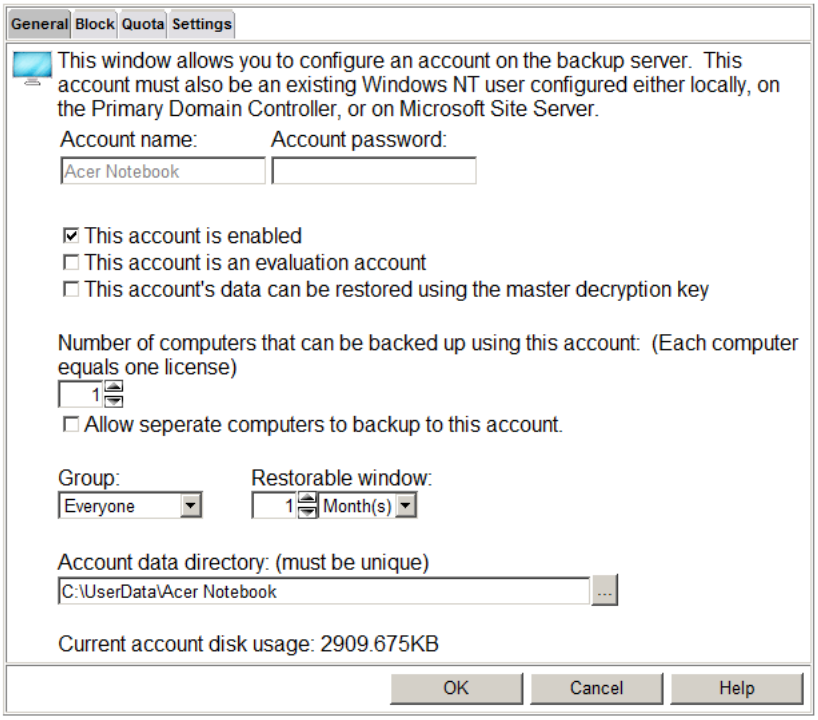
The Backup Server screen, shown on the next page, has seven tabs: Accounts, General, Security, Directories, Logging, Notifications, and Licensing.

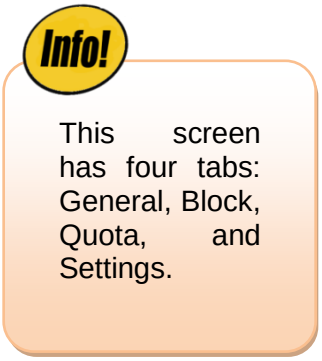


Accounts
This tab is seen in the screen directly preceding this section. The primary function of this tab is to enable you to add, remove, or view the Properties of the accounts that use this Storage Server as a backup target.

Add Screen and Properties Screen
The Add accounts and the Properties are on the same Screen. The Properties Screen shows the properties of the account you have selected, while the Add Screen has not yet been populated with account information.

The Properties screen loois shown on the next page:


General
Block
Quota
Settings
This window allows you to configure an account on the backup server. This account must also be an existing Windows NT user configured either locally, on the Primary Domain Controller, or on Microsoft Site Server.
Account name:
Account password:
Acer Notebook
This account is enabled
This account is an evaluation account
This account's data can be restored using the master decryption key
Number of computers that can be backed up using this account: (Each computer equals one license)
1
Allow seperate computers to backup to this account.
Group:
Everyone
Restorable window:
1
Month(s)
Account data directory: (must be unique)
C:\UserData\Acer Notebook
Current account disk usage: 2909.675KB
OK
Cancel
Help



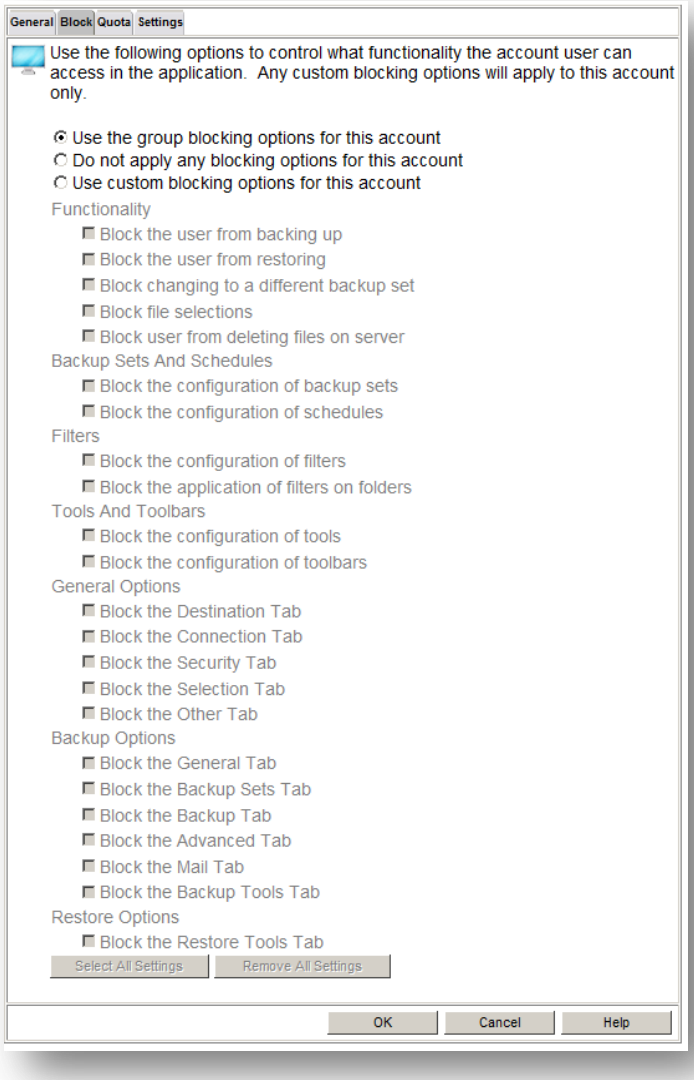
The General Tab
You can use this tab to set general settings for new or existing accounts. It contains the path to the account data directory, assigns the account to a group, and sets the length of time that restorable data will be held. Group information is selected from the dropdown menu. You can only select a pre-defined group to which this account can be assigned.

When an account name is entered, a password is not required. A password can be added after the account is created.

Accounts can be created with multiple licenses. It is possible, therefore, for a license to allow multiple computers to back up to the Storage Server. The number of computers is set up in this screen. It is also possible that an account will support more than one computers, but that the account can be set up to only allow one machine to access it at a time, rather than one or more simultaneously. The **Allow separate computers to backup to this account** check box will enable multiple computers on the account to simultaneously access the storage server.

The Block Tab
This tab provides many options for blocking elements of the client configuration. The default applies

blocking settings that have been defined for the group to which this account belongs. The Block Tab is shown here:

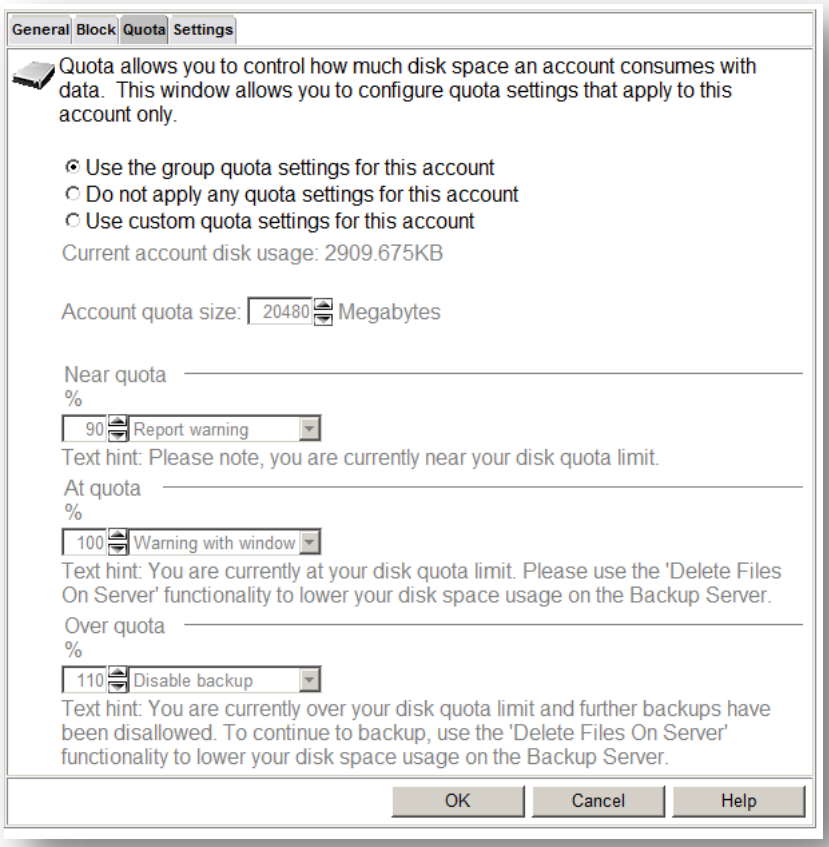

General
Block
Quota
Settings
Use the following options to control what functionality the account user can access in the application. Any custom blocking options will apply to this account only.
Use the group blocking options for this account
Do not apply any blocking options for this account
Use custom blocking options for this account
Functionality
Block the user from backing up
Block the user from restoring
Block changing to a different backup set
Block file selections
Block user from deleting files on server
Backup Sets And Schedules
Block the configuration of backup sets
Block the configuration of schedules
Filters
Block the configuration of filters
Block the application of filters on folders
Tools And Toolbars
Block the configuration of tools
Block the configuration of toolbars
General Options
Block the Destination Tab
Block the Connection Tab
Block the Security Tab
Block the Selection Tab
Block the Other Tab
Backup Options
Block the General Tab
Block the Backup Sets Tab
Block the Backup Tab
Block the Advanced Tab
Block the Mail Tab
Block the Backup Tools Tab
Restore Options
Block the Restore Tools Tab
Select All Settings
Remove All Settings
OK
Cancel
Help

Do not apply blocking options for this account removes all blocking and does not apply group settings. If you want to customize the settings for this user, clicking on **Use custom blocking options for this account** will make all the previously grayed-out options available for customization of the blocking for an account.

The Settings Tab
This tab enables you to add a new setting, edit the value of a setting, or delete a setting from this account. Settings are pre-defined, and are included in a list at the end of this manual.

The Quota Tab
This tab allows you to define how and when quotas will be applied to this account. The default action is to apply the quota settings that have already been defined for the group to which this

account belongs. You may also choose not to apply a quota (doing so will enable to account to make unlimited backups), or you may define custom settings for the account.

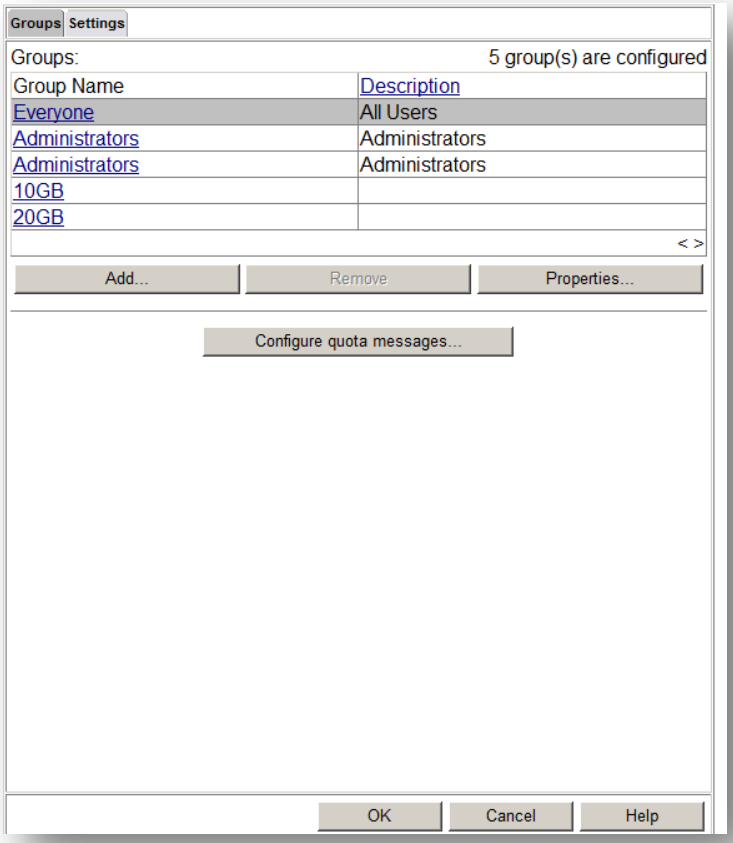

General
Block
Quota
Settings
Quota allows you to control how much disk space an account consumes with data. This window allows you to configure quota settings that apply to this account only.
Use the group quota settings for this account
Do not apply any quota settings for this account
Use custom quota settings for this account
Current account disk usage: 2909.675KB
Account quota size: 20480 Megabytes
Near quota
%
90 Report warning
Text hint: Please note, you are currently near your disk quota limit.
At quota
%
100 Warning with window
Text hint: You are currently at your disk quota limit. Please use the 'Delete Files On Server' functionality to lower your disk space usage on the Backup Server.
Over quota
%
110 Disable backup
Text hint: You are currently over your disk quota limit and further backups have been disallowed. To continue to backup, use the 'Delete Files On Server' functionality to lower your disk space usage on the Backup Server.
OK
Cancel
Help

Tip!

You can set up quotas on individual accounts or set a quota on a group. By default when you create an account, there are no quotas or limitations in place.
Also note that your Storage Server can send quota related warning reports, pop-up warning windows inside the client, or even disable a client's backup. All this can be configured in this screen.

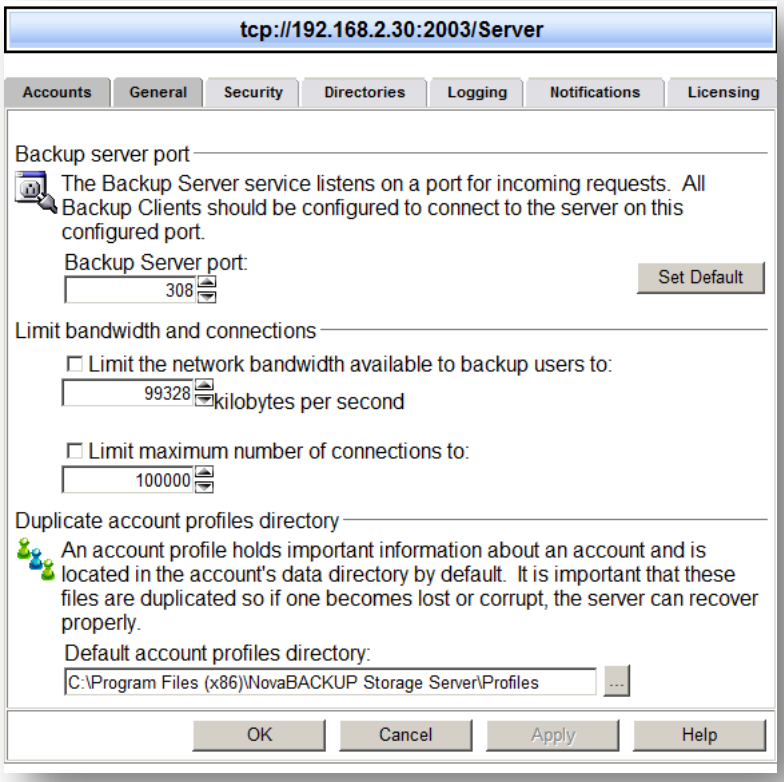
Returning to the Accounts tab

There is one more tab selectable from the Accounts Tab. This tab, **Group Policy Settings**, opens a list of groups, shown here:



The Group Policy Settings Tab lists the Groups that are already defined, and also enables you to add groups. When you select a group and click Properties, or click Add, a screen like the ones discussed for account creation and account properties will open.

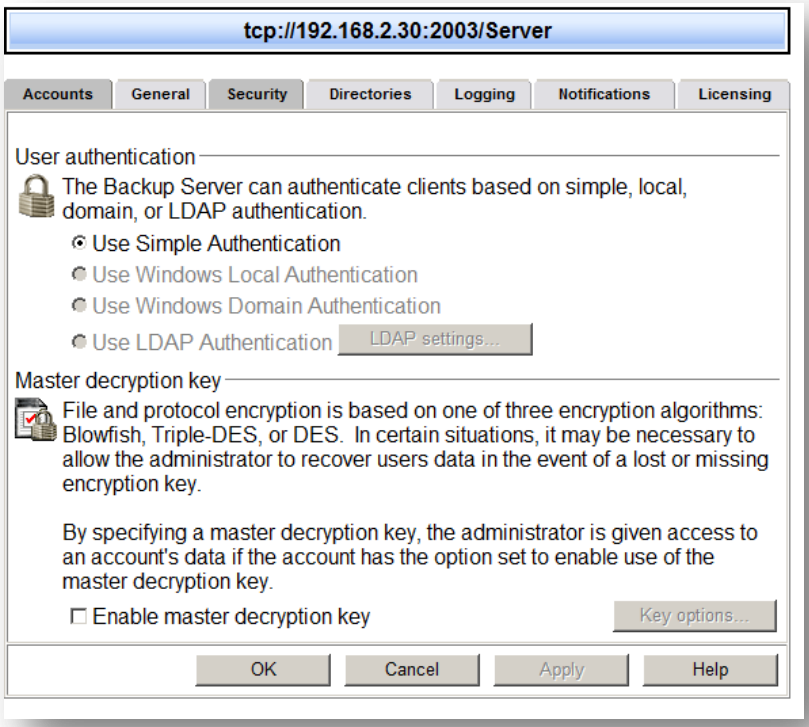
The General Tab enables you to make general settings for the Storage Server that you are configuring. The default Storage Server port is 308 – unless you have a reason to change the port, it should remain at 308. If you want to change the port number, you may do so by scrolling up or down in the **Storage Server port**: window, or by typing in a new port number. When that number is entered, press **Set Default** to save the new port as the default.
Note: Port 308 is a reserved port specifically for NovaStor backups. No other application is expected to use this port.


tcp://192.168.2.30:2003/Server
Accounts
General
Security
Directories
Logging
Notifications
Licensing
Backup server port
The Backup Server service listens on a port for incoming requests. All Backup Clients should be configured to connect to the server on this configured port.
Backup Server port:
308
Set Default
Limit bandwidth and connections
Limit the network bandwidth available to backup users to:
99328
kilobytes per second
Limit maximum number of connections to:
100000
Duplicate account profiles directory
An account profile holds important information about an account and is located in the account's data directory by default. It is important that these files are duplicated so if one becomes lost or corrupt, the server can recover properly.
Default account profiles directory:
C:\Program Files (x86)\NovaBACKUP Storage Server\Profiles
OK
Cancel
Apply
Help

The **Limit bandwidth and connections** section of the General tab allows you to create bandwidth limits for backup users. If you are running other processes besides functioning as a Storage Server, you may choose to create bandwidth limits.

The final section in the General tab is **Duplicate account files directory**. As explained in the text that is included in this area, it is important that one or more copies of account profiles be duplicated and stored in a separate directory. This way, should a user.apf file become corrupted, the account information can be restored from information stored in the backup .apf file. You may use the browse button to select a different directory, or just accept the default by making no changes.

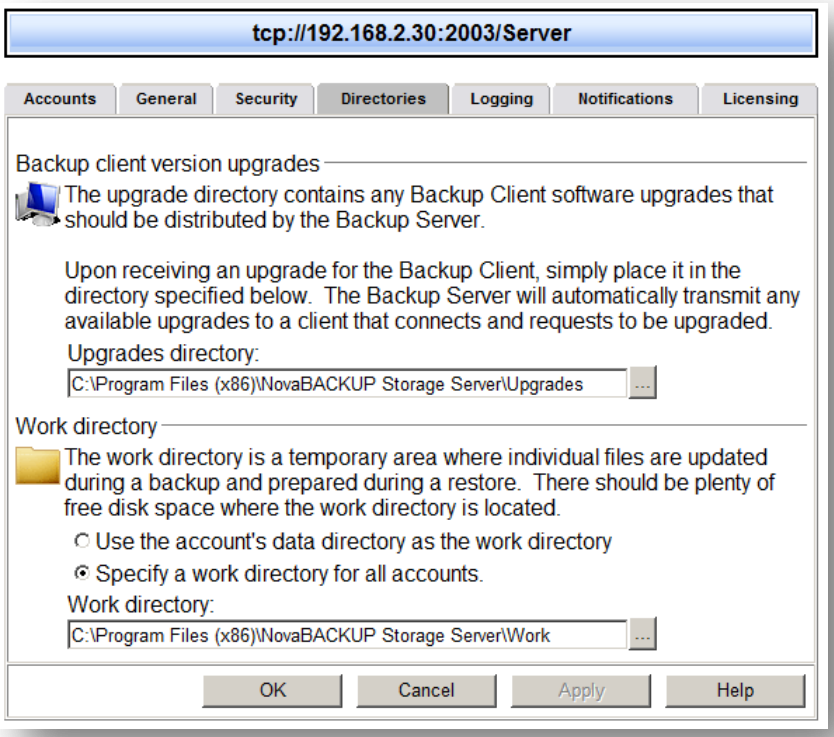
The Security Tab defines the authentication method you have chosen, as well as an option to use a security certificate for your server. You may implement TLS if you have a certificate that can be applied for authentication. For information about Transport Layer Security, visit: http://en.wikipedia.org/wiki/Transport_Layer_Security


tcp://192.168.2.30:2003/Server
Accounts
General
Security
Directories
Logging
Notifications
Licensing
User authentication
The Backup Server can authenticate clients based on simple, local, domain, or LDAP authentication.
Use Simple Authentication
Use Windows Local Authentication
Use Windows Domain Authentication
Use LDAP Authentication
LDAP settings...
Master decryption key
File and protocol encryption is based on one of three encryption algorithms: Blowfish, Triple-DES, or DES. In certain situations, it may be necessary to allow the administrator to recover users data in the event of a lost or missing encryption key.
By specifying a master decryption key, the administrator is given access to an account's data if the account has the option set to enable use of the master decryption key.
Enable master decryption key
Key options...
OK
Cancel
Apply
Help

About the master decryption key
The master decryption key is a key that can be used to decrypt user backups. In the event that a user loses or forgets its decryption key, use of the master decryption key may be the only way to restore the user's data.

The user may choose to disable the master decryption key using an option in its client software. Although this may be perceived as providing protection from inappropriate activities by the backup service provider, it is also making recovery of data nearly impossible if user encryption keys are lost or forgotten.

The Directories Tab specifies the location where upgrade files are stored. When a client runs the client software and checks the **Check for Upgrades** tab in the software, this is the directory where the server will search for an upgrade (this is solely used for NovaNET-Web 7.x and below). It is important when copying upgrade files onto the server, that the upgrade files be placed into the correct upgrade folder.

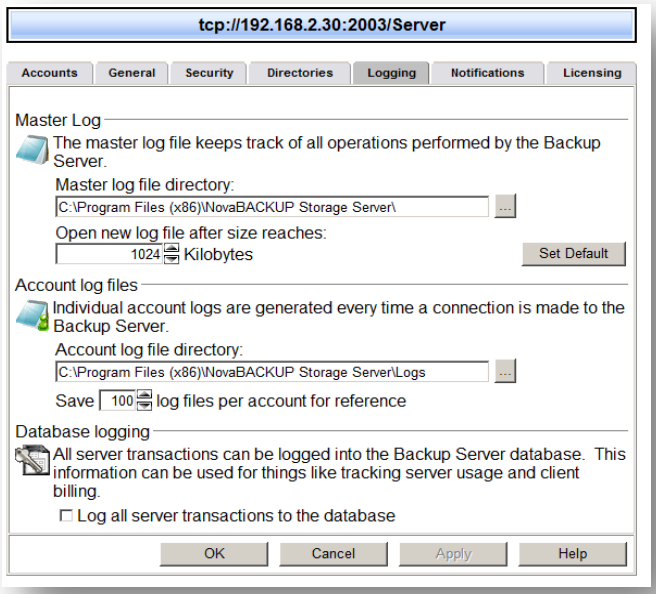

tcp://192.168.2.30:2003/Server
Accounts
General
Security
Directories
Logging
Notifications
Licensing
Backup client version upgrades
The upgrade directory contains any Backup Client software upgrades that should be distributed by the Backup Server.
Upon receiving an upgrade for the Backup Client, simply place it in the directory specified below. The Backup Server will automatically transmit any available upgrades to a client that connects and requests to be upgraded.
Upgrades directory:
C:\Program Files (x86)\NovaBACKUP Storage Server\Upgrades
Work directory
The work directory is a temporary area where individual files are updated during a backup and prepared during a restore. There should be plenty of free disk space where the work directory is located.
Use the account's data directory as the work directory
Specify a work directory for all accounts.
Work directory:
C:\Program Files (x86)\NovaBACKUP Storage Server\Work
OK
Cancel
Apply
Help

The Work directory stores the temporary files during a rollup and restore. This screen suggests that the directory has a considerable amount of room to copy these temporary files. This is especially important if multiple clients are attempting upgrades at the same time (for best practices, this directory should be as large as your largest customer).

Tip!

The work directory should be at least as large as your largest backup account, and preferably even larger. If you do not have a large enough free space for the work directory and you have to restore more data than you have free space, you may have problems restoring until more space is allocated.

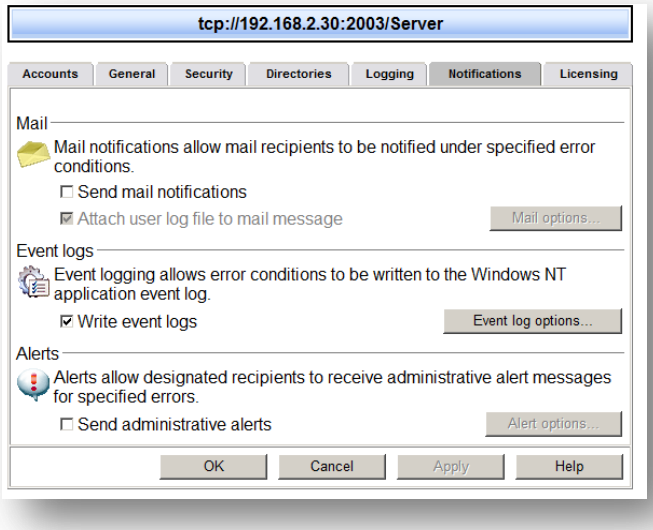
The Logging Tab is where you can set options for the Master log, Account log files, and Database logging options.



The Notifications tab is used to configure:

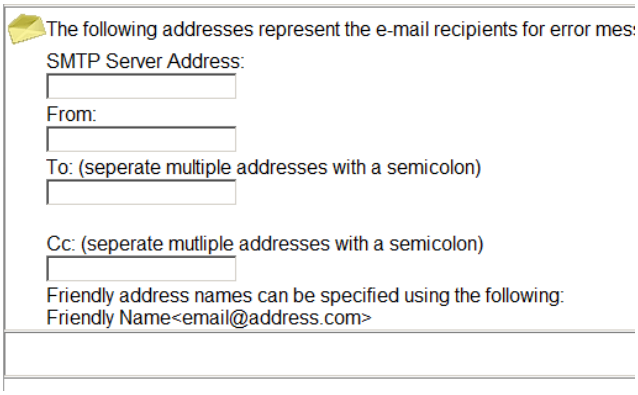
- Whether or not mail notifications will be sent to users
- Whether or not events will be logged
- Whether or not administrative alerts will be sent to the administrator.
-

If you choose to send mail notifications to the administrator or others, you will have to set your mail options.

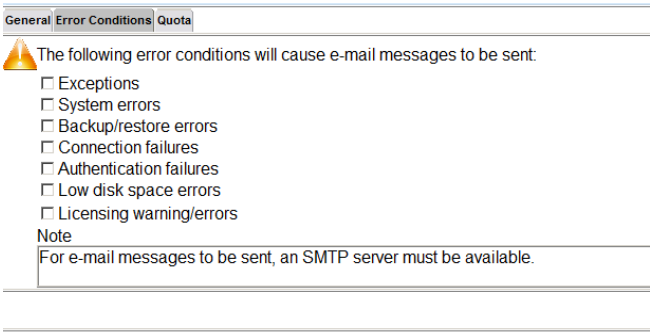


The E-Mail Configuration menu requires the SMTP Server Address, From: To: and also allows you

to send multiple copies. You may also use Secure Socket Layer (SSL) to send your messages. The E-Mail Configuration screen looks like this:


The following addresses represent the e-mail recipients for error mes
SMTP Server Address:
From:
To: (seperate multiple addresses with a semicolon)
Cc: (seperate mutliple addresses with a semicolon)
Friendly address names can be specified using the following:
Friendly Name<email@address.com>

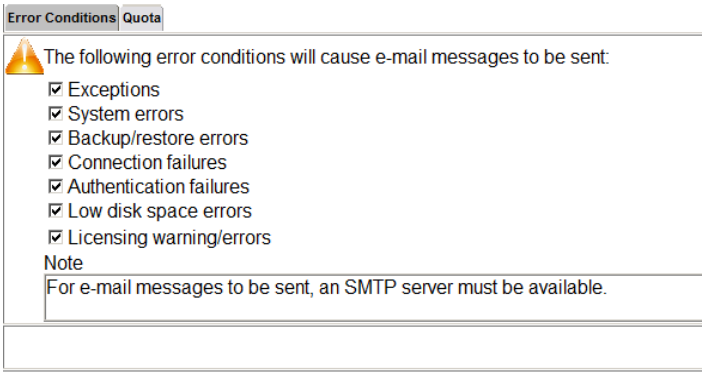
Additionally, you can select the Error Conditions that will trigger the sending of E-Mail, as seen here:



You may also send mail to inform you when a user account reaches certain quota thresholds.

The mail system can be set to attach user log files to the mail message, so that you can quickly identify which user accounts may be having problems or approaching quota limits.

If you choose to write event logs, you will be able to set Event log options.



The errors that you select will be written to the Event Log when they occur. When you have put a

check mark in the box next to each system error you want added to the log, clicking the **Set default** button will save these conditions. You can also set Quota issues that can be saved in the Event log.

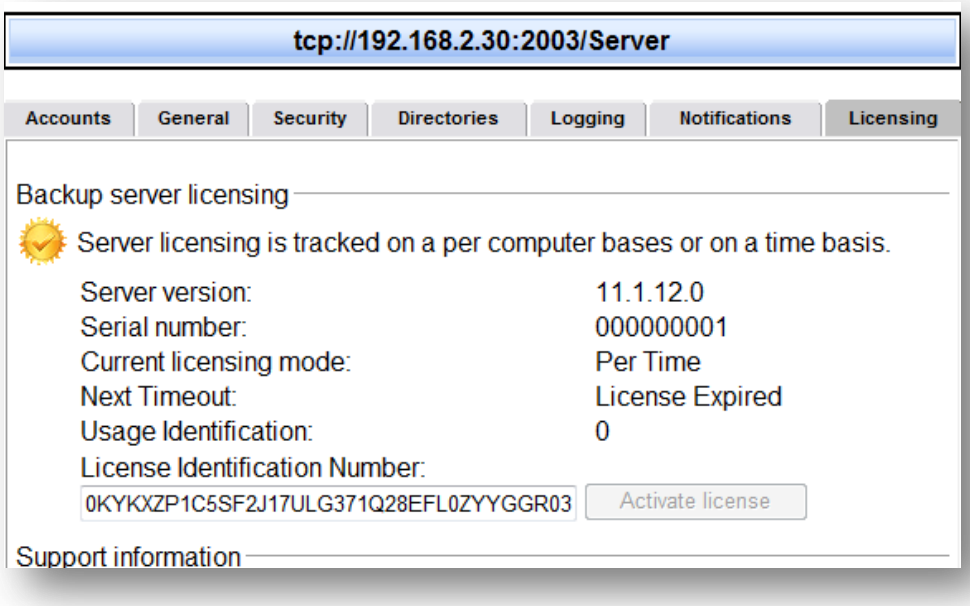
Send Administrative Alerts provides the same basic options as Event Logs or as the error conditions that exist in the Mail options menu.

Alerts differ from notifications, because alerts are sent to the Event Log, rather than to E-Mail.

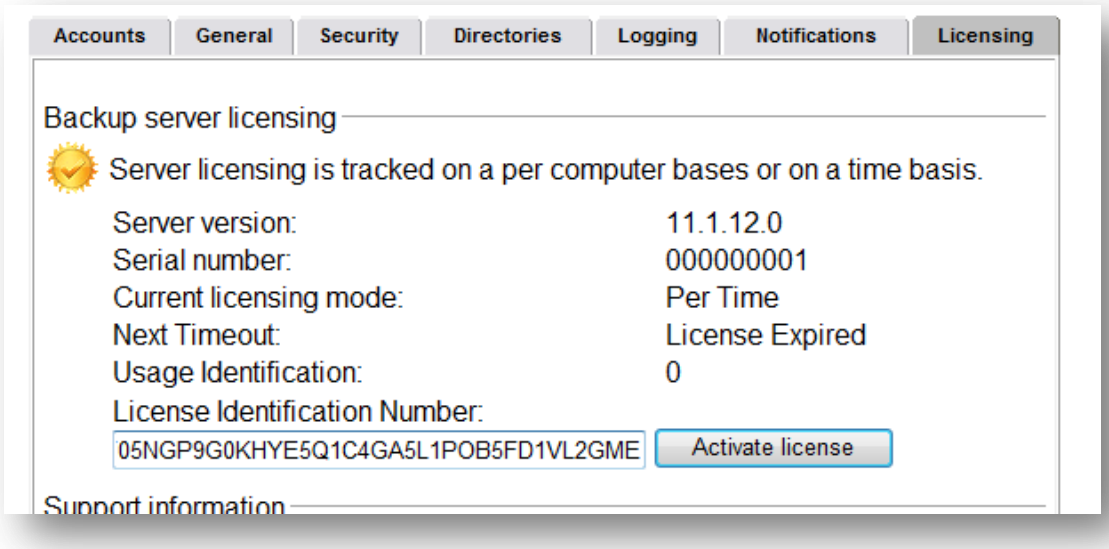
The Licensing tab is used to get information about the storage server, to register or renew a license, and to provide support information for users who are performing backup and recovery on your storage server.

Updating a license:
Clicking on the Licensing tab will open the licensing screen. This screen provides the Backup Server Licensing information (including current status and licensing mode) and allows you to update the license if it's expired, and also provides Support Information.

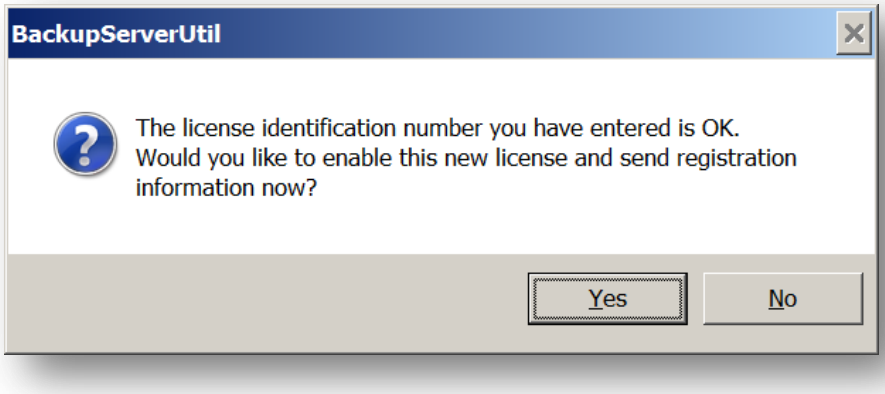
In the screen shown here, the license has expired.



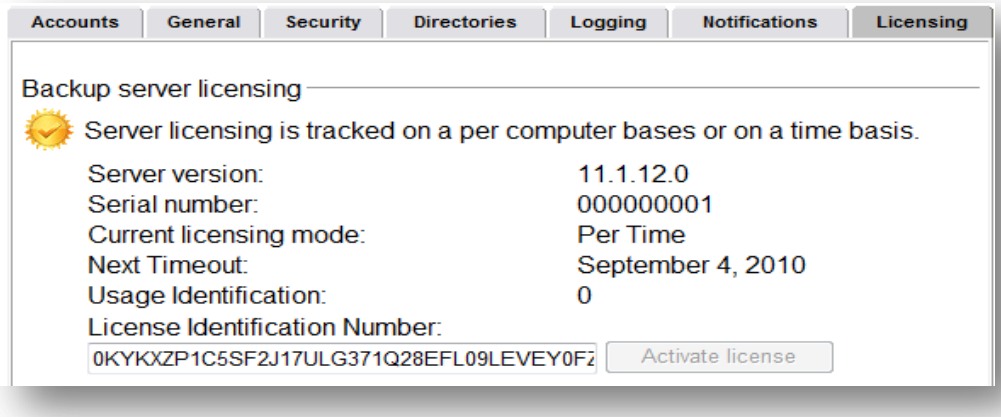
When a new, valid license is entered, the Activate License button is no longer grayed out, if a valid license is used. A valid license can be cut and pasted into the license key area. As shown here, Activate License is no longer grayed out and can be clicked to apply the license.



NovaStor's Web Server will check the key number, and once determined to be valid, a screen will confirm that the license identification number entered is OK.

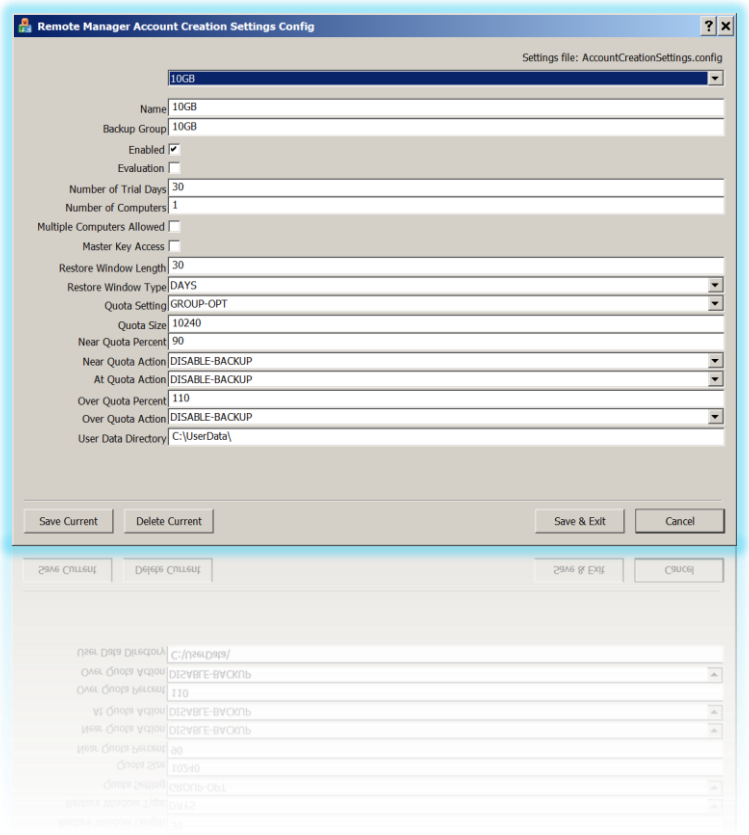

BackupServerUtil
The license identification number you have entered is OK.
Would you like to enable this new license and send registration information now?
Yes
No

After you press **yes**, the updated expiration date and licensing details are updated, as shown on the next page:

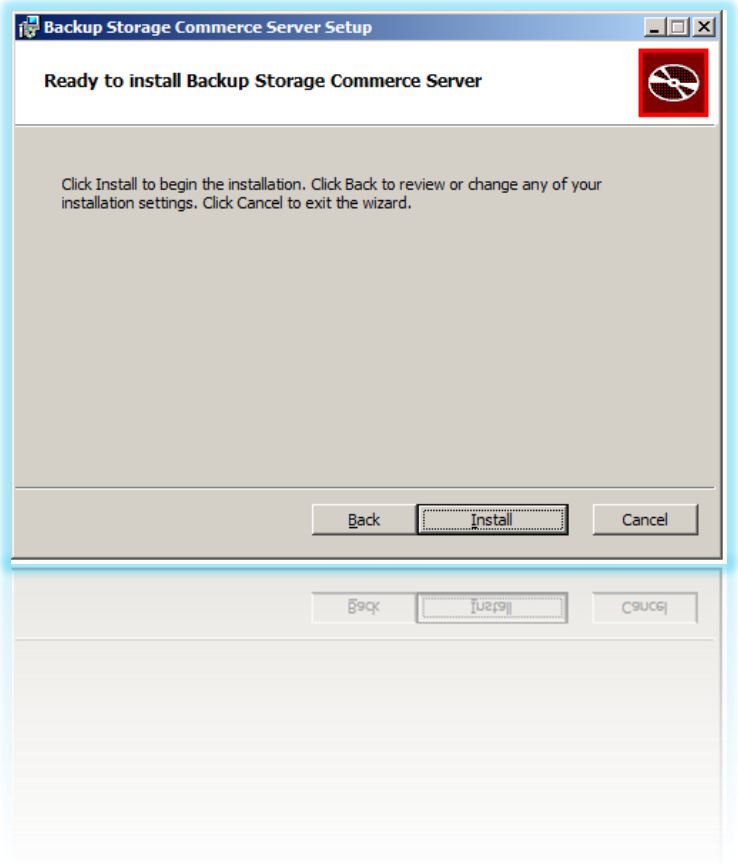


When you enter registration information, and press **Register**, the information is sent to NovaStor and checked for validity. This information is used to validate your license. It is also accessed by your client software when a support request is made.

Licensing can be updated using the Remote Manager, or the Storage Server Configuration Manager.



Commerce Server Installation and Upgrade


Backup Storage Commerce Server Setup
Ready to install Backup Storage Commerce Server
Click Install to begin the installation. Click Back to review or change any of your installation settings. Click Cancel to exit the wizard.
Back
Install
Cancel

System Requirements

- Windows Server 2003 or Windows Server 2008 is required for installation of Commerce Server. * IIS 6 must be installed on the system that hosts the Commerce Server web site. Use the Windows Server Manager to add or modify roles.
- Microsoft SQL Server 2005 or Microsoft SQL Server 2008 must be installed, running, and accessible to the system on which Commerce Server is being installed. For convenience, Microsoft SQL Server Express 2008 can be installed as part of Commerce Server setup. You should already understand how to install SQL Server if plan to take advantage of this feature.
- Microsoft SQL Server Express is not recommended because it has a SQL database size limit of 4 GB.
- Access to an SMTP server is required by Commerce Server for sending confirmation E-Mail messages, administrative alerts, etc. However, it is not needed in order to complete the installation process.
- For best results, a minimum display resolution of 1024 x 768 is recommended when accessing the Commerce Server web site.

* Remember to install the IIS 6 metabase compatibility pack when using server 2008.

Upgrading from a previous version

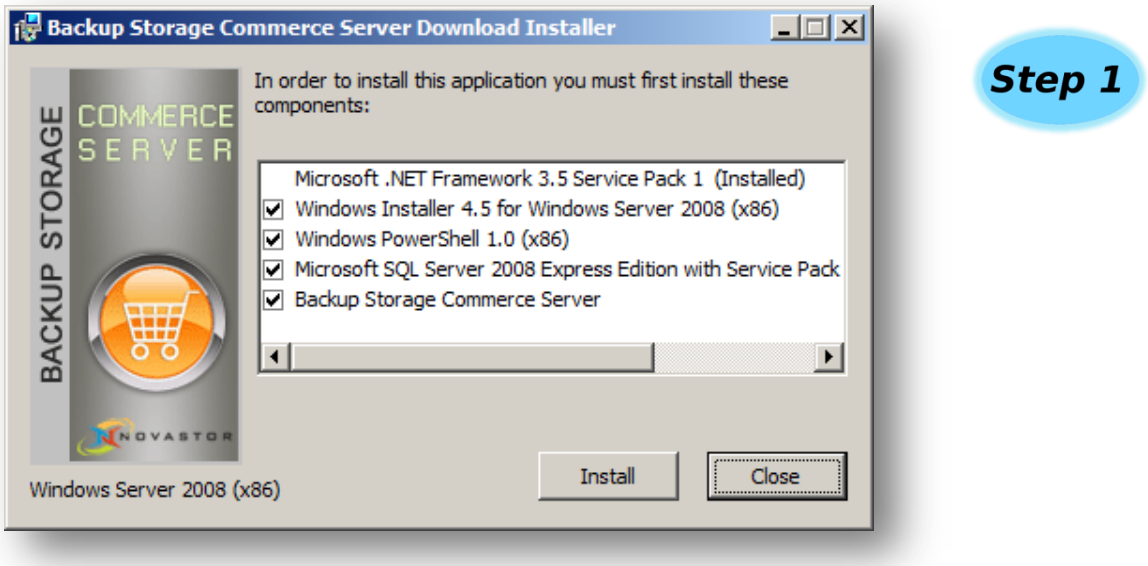
To upgrade from a previous version of Commerce Server, please follow these steps:

1. Copy the **web.config** and license agreement files from the existing installation. You may need these later. Also, make sure you record the name of your existing database.
2. Uninstall Commerce Server (see the Uninstalling section in this document if you are unsure of how to do this).
3. Verify that the old Commerce Server installation folder has been deleted, if not, delete it manually.
4. Install the new Commerce Server using the directions in this document. Specify your existing database in order to migrate it to the new Commerce Server.
5. Reinstate your existing license agreement, if desired. Copy any desired configuration settings from your old web.config file to the new one.

Installing Commerce Server

Run **CSS_setup.exe** from an account with administrator privileges to start the installation process. It is recommended to run the file from a local device rather than from a network resource to insure that the installer is available should the system need to be restarted.

The first screen, Backup Storage Commerce Server Download Installer will appear:


Backup Storage Commerce Server Download Installer
BACKUP STORAGE
COMMERCE SERVER
NOVASTOR
In order to install this application you must first install these components:
Microsoft .NET Framework 3.5 Service Pack 1 (Installed)
Windows Installer 4.5 for Windows Server 2008 (x86)
Windows PowerShell 1.0 (x86)
Microsoft SQL Server 2008 Express Edition with Service Pack
Backup Storage Commerce Server
Windows Server 2008 (x86)
Install
Close
Step 1

Checkboxes indicate which components will be installed on your system. If any of the items (such as SQL Server) are already installed on your server, you do not need to add these to the list.

You can use the installer to install only Microsoft SQL Server Express by checking everything except Backup Storage Commerce Server. Alternately, if you wish, you can install SQL Server from another source. Please see Microsoft's documentation for installation instructions.

A system restart may be required after certain components are installed. If the installer does not automatically restart, restart it manually by running CSS_setup.exe again.

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The installation of the Commerce Server starts with the welcome dialog will open.

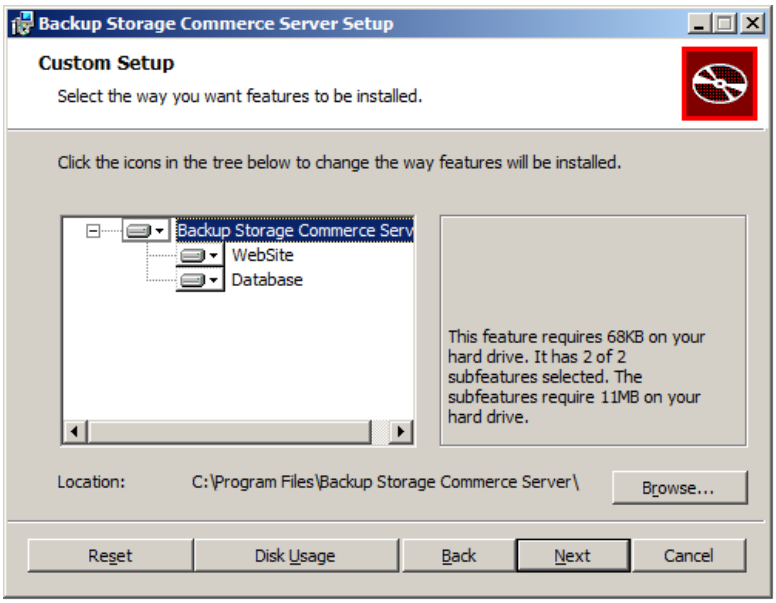
Backup Storage Commerce Server Setup
Welcome to the Backup Storage Commerce Server Setup Wizard
The Setup Wizard will install Backup Storage Commerce Server on your computer. Click Next to continue or Cancel to exit the Setup Wizard.
Back
Next
Cancel
Step 2

Click on the **Next** button to continue the installation process.

The next dialog you see is the End-User License Agreement. Check the checkbox and click **next** if you accept the terms of the agreement, otherwise press the Cancel button to cancel installation.

Customizing the installation
The Custom Setup screen will open. The option to install the web site will not be presented if IIS is not running on the system. You can choose to disable web site installation if you intend to install it later on another system, in which case the installer will only initialize the Commerce Server database.

Use the Browse button to select a different location than the default location to install the Commerce Server, if you want to do this. Press the Disk Usage button to view the available disk space. Press the Next button when you are satisfied with the selected storage location.

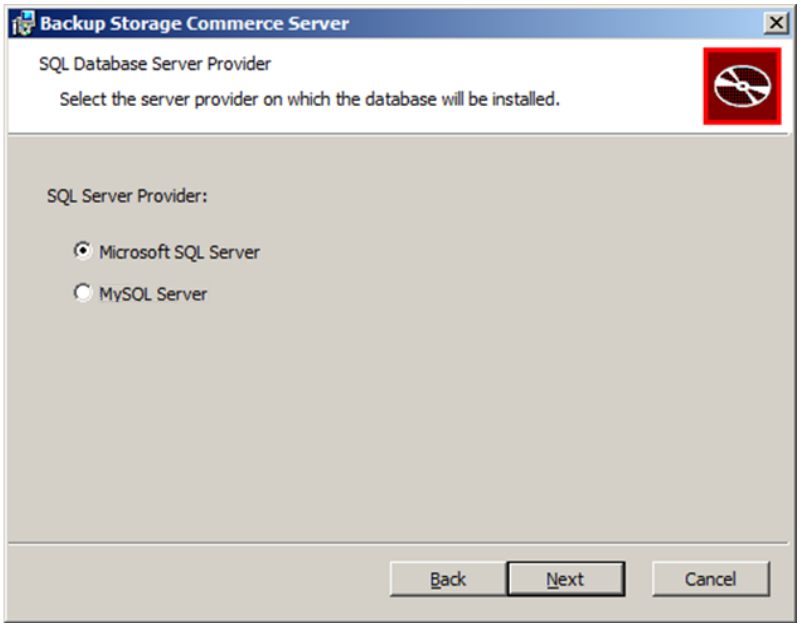

Backup Storage Commerce Server Setup
Custom Setup
Select the way you want features to be installed.
Click the icons in the tree below to change the way features will be installed.
Backup Storage Commerce Serv
WebSite
Database
This feature requires 68KB on your hard drive. It has 2 of 2 subfeatures selected. The subfeatures require 11MB on your hard drive.
Location:
C:\Program Files\Backup Storage Commerce Server\
Browse...
Reset
Disk Usage
Back
Next
Cancel

Step 3

Tip!

Installing to the C: drive is recommended.

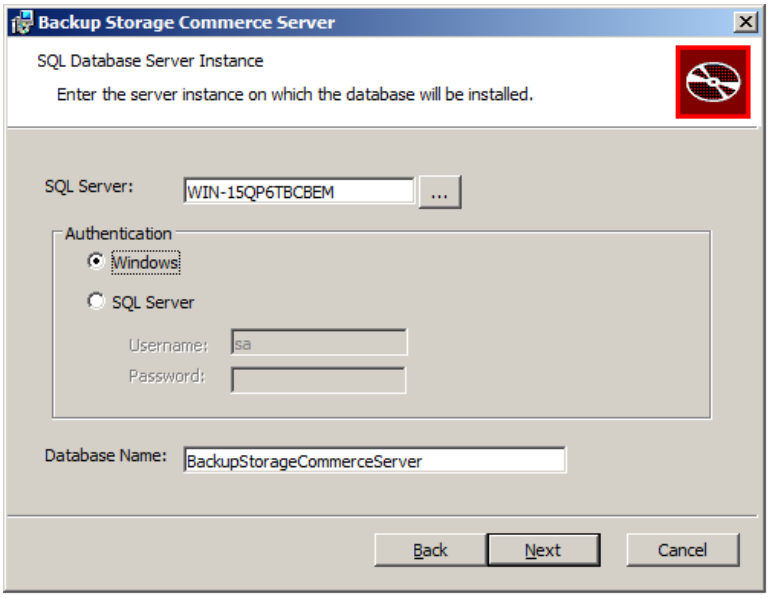
The SQL Database Server Provider screen asks you to select a service provider.



Step 4

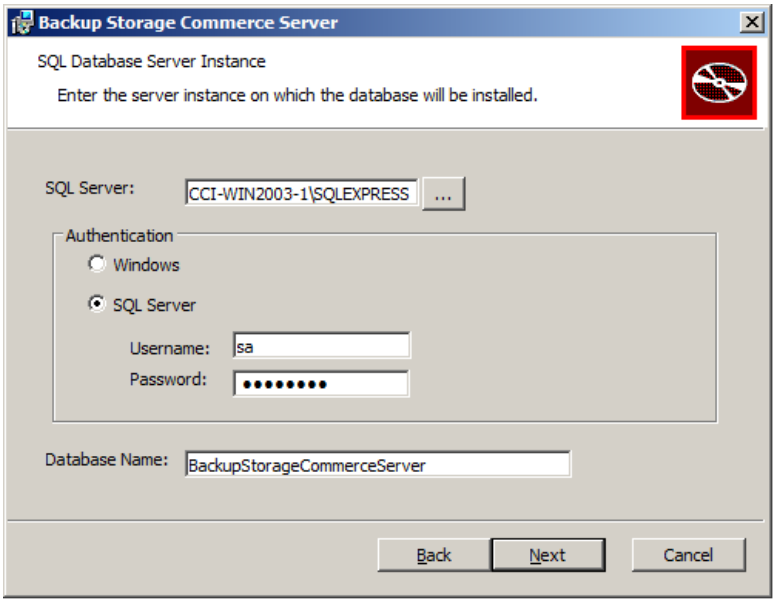
The NovaBACKUP xSP Commerce Server supports Microsoft SQL Server and MySQL. Make your selection and click **next** to continue. The next section describes how to set up Commerce Server to use SQL Server. If you are using MySQL, you can skip this section.

Using A SQL Server Database
If you choose SQL Server as your database, the next dialog will look like this:



Step 5

Use this dialog to select a specific instance of the database. The installer will display the name of the first server, if any, on which it discovers a database. Use the browse button to display a list of other database servers. If the desired server is not in the list, you must manually enter the server name. Append the name of database server instance to the server name, separated by a backslash. An example is shown is shown here:



Step 6

If the SQL instance isn't working on this screen, try using a period, symbolizing "local."

Tip!

"SQLEXPRESS" is the default name of an SQL Server Express database unless another name was specified when the software was installed.

Once you've specified a database server instance you need to tell setup which credentials to use to access the database. Select Windows authentication to use your Windows user name and password. If you are using SQL Server authentication, select SQL Server and enter a user name and password.

It is recommended that you use 'sa' as the username to avoid any possible permissions issues during creation and/or modification of the database and its fields. The type of authentication to use depends on how SQL Server was configured when it was installed.

Be aware that the database must be accessible to the web server, so authentication must be set up accordingly. For this reason, you may find it easier to use SQL Server authentication to allow IIS users access to the database. Refer to your database administrator if you are unsure of how to do this.

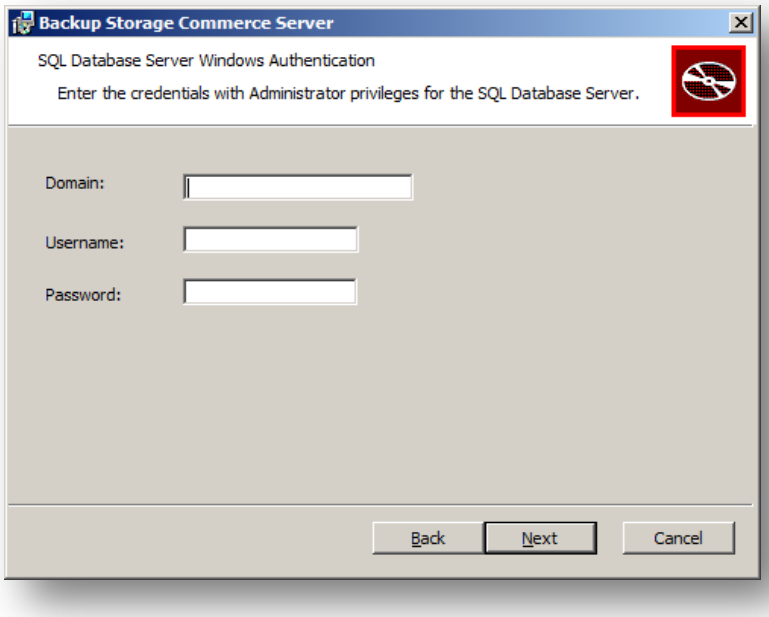
You may enter a different database name if you prefer something other than the default. Setup will create the database if it does not exist.

When you press the **Next** button, setup will verify your credentials and allow you to proceed to the next step if authentication is successful.

The SQL Database Server Windows Authentication screen records your credentials for your database server.

Tip!

"Using the default database name is recommended for any future troubleshooting or upgrades."

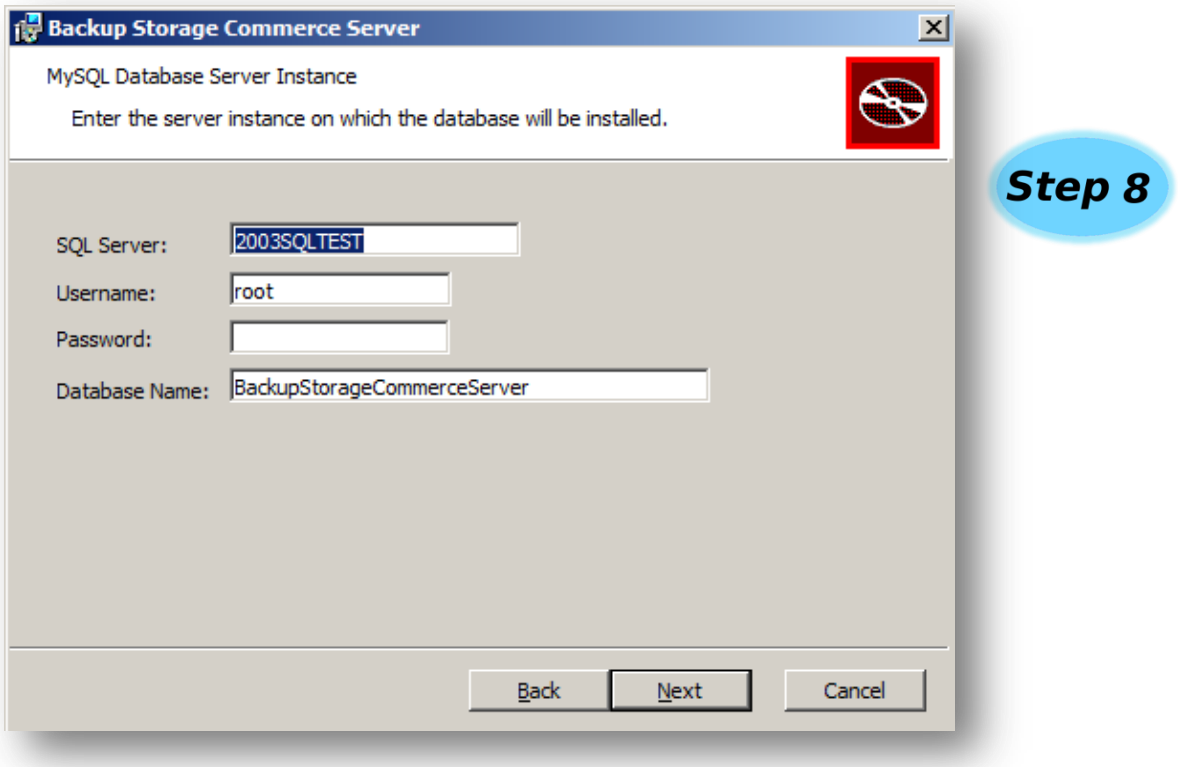


Entering the domain name is optional; you will need to enter the Windows user name, preferably the Administrator name and password. This must be a user who has full access to the SQL Server database files. If you are not using a domain account, then type the name of the computer where the user account exists (i.e. the database server name). This information is used by setup for one-time access to the file system. It is not stored.

Using a MySQL database

Note that NovaStor does not recommend the use of MySQL for NovaBACKUP xSP, and does not guarantee long-term support of MySQL. However, for those users who are running NovaBACKUP xSP and using MySQL to manage the data, this section provides instructions for such an installation.

A MySQL database is specified using the dialog shown on the next page.

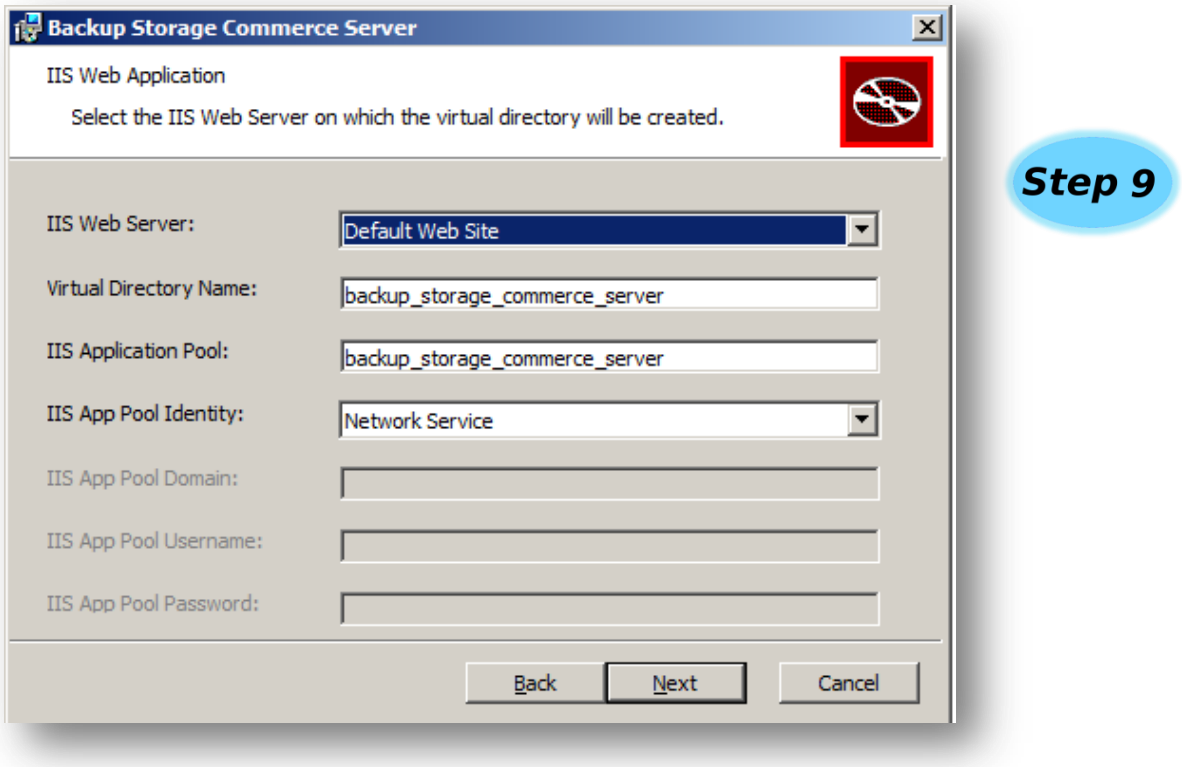


Supply the name of the database server, the user name, and the password required to access the database. If you are unsure of this information, your database administrator should be able to provide it.

You may enter a different database name if you prefer something other than the default. Setup will create the database if it does not exist.

When you press the **Next** button, setup will verify your credentials and allow you to proceed to the next step if authentication is successful.

Setting up the website
If web site installation was enabled in the custom setup dialog, you will be prompted for web server details, as shown on the next page.



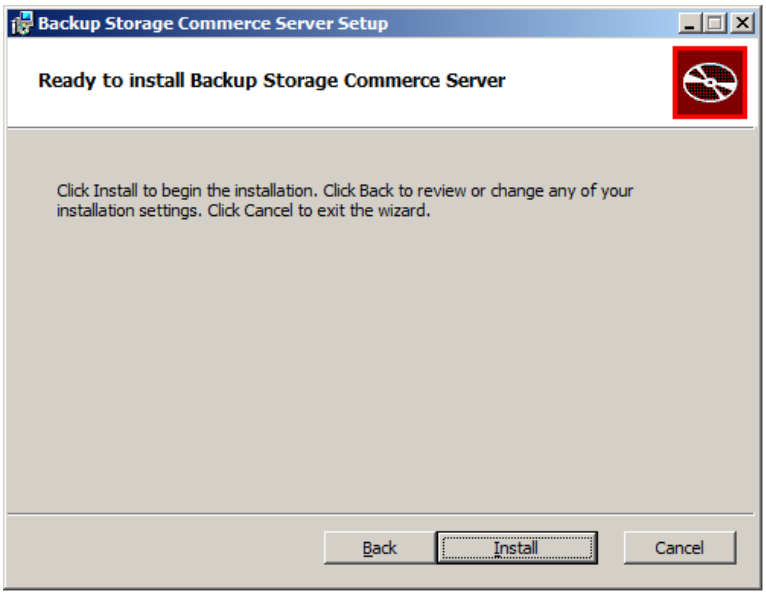
You may enter the following information:

- **IIS Web Server** – The IIS website to which Commerce Server will be added. The default web site is typically the one bound to port 80. At this time, default website is required.
- **Virtual Directory Name** – The name of the Commerce Server's virtual directory within the web site. For example, if the web site address is www.mycompany.com, and the virtual directory name is set to CommerceServer, then the Commerce Server's web address will be www.mycompany.com/CommerceServer.
- **IIS Application Pool** – A unique name for the IIS application pool which will be created by the installer.
- **IIS App Pool Identity** – The identity used by the application pool. Values can be Network Service, Local Service, Local System, or the name of the user account for a custom identity.

You can accept the default values, or provide new ones if the defaults don't meet your needs. Refer to your web site administrator if you are unsure of what to enter.

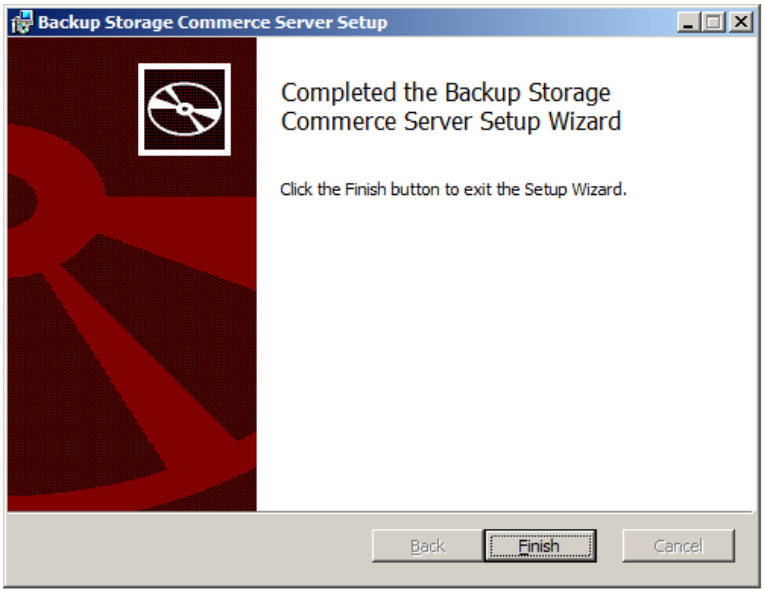
Finalizing the installation

Setup now has all the information it needs to complete the installation and displays the Ready to Install dialog box, giving you the option to Install, cancel or Go Back (to review the settings).


Backup Storage Commerce Server Setup
Ready to install Backup Storage Commerce Server
Click Install to begin the installation. Click Back to review or change any of your installation settings. Click Cancel to exit the wizard.
Back
Install
Cancel

Step 10

Click the **Install** button to install the Commerce Server files. Setup will display a progress dialog. When installation is completed, this screen will display:


Backup Storage Commerce Server Setup
Completed the Backup Storage Commerce Server Setup Wizard
Click the Finish button to exit the Setup Wizard.
Back
Finish
Cancel

Step 11

The installation process may take a few minutes. Press the **Finish** button to dismiss the dialog and return to the starting point. If you don't wish to install anything else, click the **Close** button.

Uninstalling

To remove the Commerce Server, use the program removal facility of Windows Control Panel. This removes the web site but leaves the database intact. To verify that virtual directories have been removed, please check IIS and if not, manually remove the virtual directories.

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The following table lists some issues that may arise during installation.

Problem Description	Solution
Setup restarts the system but does not finish installation when the system comes back up.	**Setup.exe** was probably run from a network resource that is not available after the system was restarted. Locate **setup.exe** and re-launch it manually.
Setup fails to install Windows Installer 4.5, Windows Powershell 1.0, or Microsoft SQL Server 2008 Express.	Setup was unable to access Microsoft's web site. Install SQL Server from another source, or directly from Microsoft's web site if available.
Setup does not display the WebSite option in the Custom Setup dialog.	IIS is not installed. Use Windows Server Manager to add the Web Server role and restart setup.
Your database server is not shown in the list of available database servers.	Type the name of your database server in the SQL Server field.
Setup is unable to authenticate with the database server.	The database server, or database name, was entered incorrectly; the server does not support the mode of authentication selected; the user name or password is incorrect; the server or database is not available; communication with the server is being blocked by a firewall; the database server is not listening on the default port. Verify the information that was entered. Refer to your system administrator to diagnose connection problems.
Administrator authentication reports "The specified credentials failed to authenticate."	Verify that the correct domain name, user name, and password were entered. If the database server is installed on the current system, then the domain can be left blank, otherwise it should specify a domain name or the name of the computer that the database is installed on.
The web browser is unable to connect to the Commerce Server Administrator site.	The IIS web server is not running. Start the service and try again.

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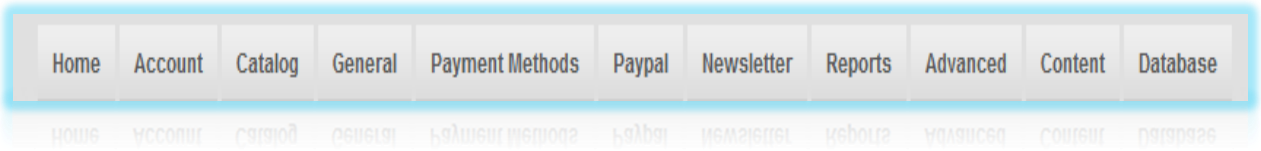
Testing the installation
To verify Commerce Server installation, point your browser to this address:
http://localhost/backup_storage_commerce_server/Administration/Home.aspx
Alternately, you can use the Administration shortcut that was installed in the Windows start menu under Backup Storage Commerce Server.

You should now be viewing the Commerce Server login page. The initial user name and password is 'admin'. For the security conscious, we recommend that you should change this as soon as possible.

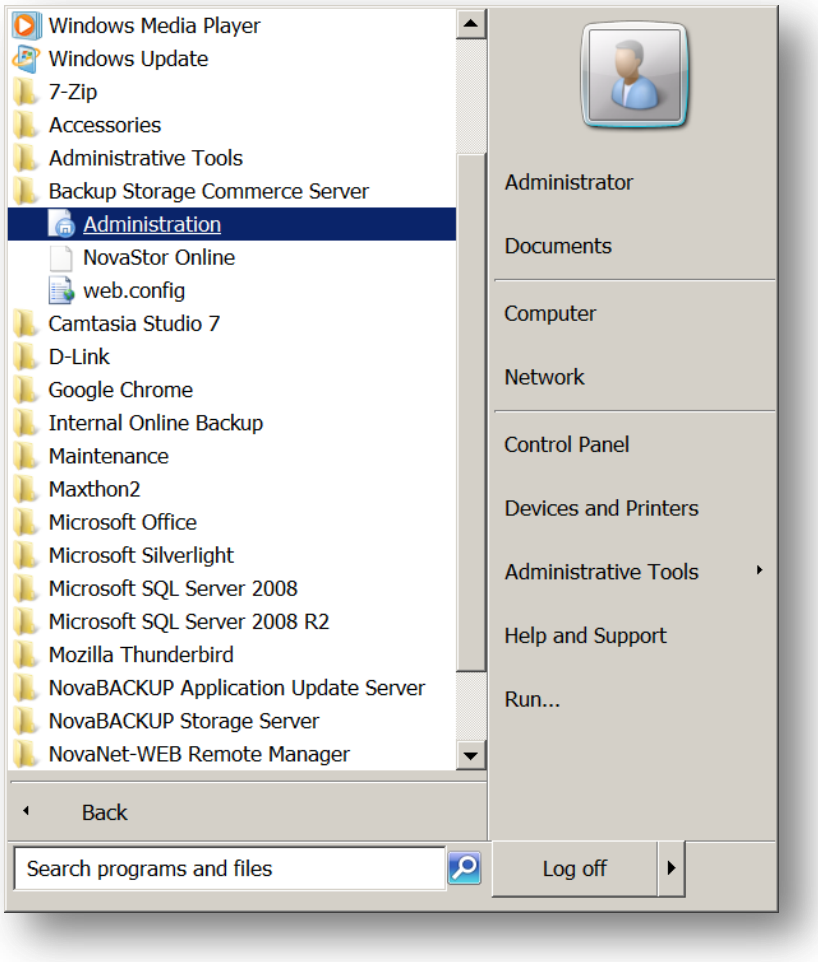
NovaBACKUP xSP Commerce Server



"The NovaBACKUP xSP Commerce Server is designed to allow you to deliver backup services, marketing materials, newsletters and additional benefits to the user."

The NovaBACKUP xSP Commerce Server is designed to allow you to deliver backup services, marketing materials, newsletters and additional benefits to the user. The Commerce Server enables you to configure and offer services to clients. The Commerce Server is run as a web application, and interacts with the SQL database storing the Commerce Server data.

The Commerce Server is launched from the Start menu. When the Start menu opens, keep the mouse on top of **All Programs** until the screen expands. Next, click on **Backup Storage Commerce Server** to expand the menu, as shown here:



Then click on **Administration**.

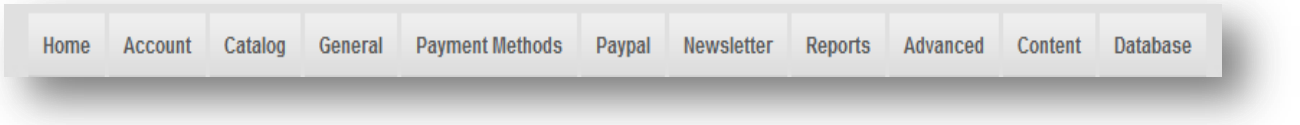
The Commerce Server Administration screen will open in your default browser, and the login screen will appear, as seen here:

Enter the username and password used to access the SQL database (the default username and password are admin), and click **Log On**.

The Commerce Server User Interface

The user interface consists of a single main screen. At the top of this screen you'll find the navigation bar which you can use to move throughout the Commerce Server.

Tabs



The Home tab allows you to set up new products, and create preview products to review your customer's experience.

- The **Account** tab allows you to change your administrator password.
- The **Catalog** tab allows you to view all of your configured products, and create new ones
- The **General** tab enables you to configure your Google Analytics information, and turn on or off the Welcome Step of user signup.
- The **Payment Methods** tab allows you to change the payment methods you accept, and to configure the order in which they appear.
- The **Paypal** tab allows you to configure your PayFlow merchant account information.
- The **Newsletter** tab allows you to configure E-Mail address insertion into bulk mailing services.
- The **Reports** tab allows you to view user registrations and invoices.
- The **Advanced** tab allows you to configure the E-Mails that are sent to your end users.
- The **Content** tab gives you the ability to edit the Commerce Server core files.
- The **Database** tab allows you to view entries in the database backend of the Commerce Server.

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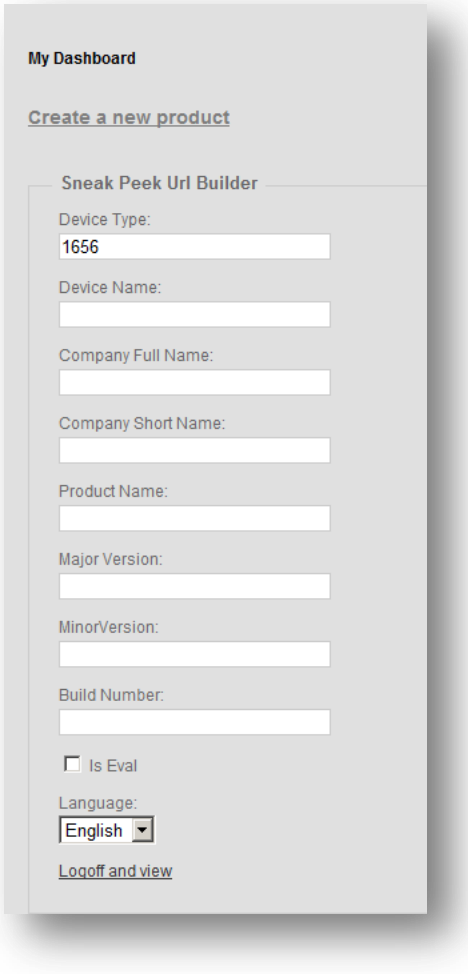
Tab Functionality

Home Tab
On this screen you will find a link to create a new product to sell within the Commerce Server, and a Sneak Peak URL Builder, which will allow you to preview what your product will look like to customers. The options available in the Home tab look like the picture on the next page:

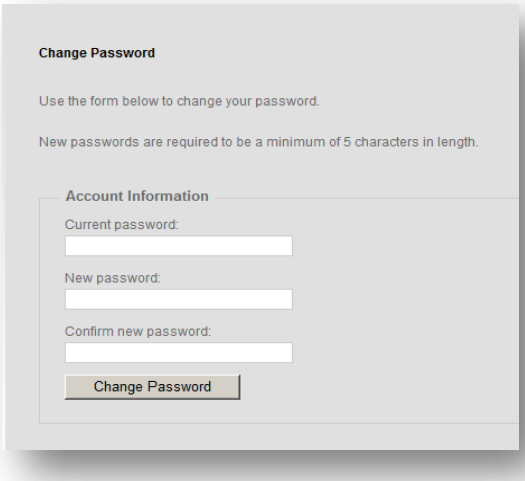


Create a new product
The Create a new product button takes you to a screen that allows you to customize the entries available for purchase for your customers.

Sneak Peak URL Builder

The purpose of the Sneak Peak URL Builder emulates the URL that a client would send to the Commerce Server. This allows you to preview what products would be returned to a customer who is viewing your Commerce Server with a particular client type as configured below.

- **Device Type:** Currently this field must always be set to 1656.
- **Device Name:** This will set the Device Name that is being passed to the Commerce Server by the emulator.
- **Company Full Name:** This will set the Company Full Name that is being passed to the Commerce Server by the emulator. For default NovaBackup installations this is set to "NovaStor"
- **Company Short Name:** This will set the Company Short Name that is being passed to the Commerce Server by the emulator. For default NovaBackup installations this is set to "NovaStor"
- **Major Version:** This will set the Major Version that is being passed to the Commerce Server by the emulator. The Major Version is the number which appears before the period, in the version number. (**10**.0, **11**.0, etc)
- **Minor Version:** This will set the Minor Version that is being passed to the Commerce Server by the emulator. The Minor Version is the number which appears after the period, in the version number. (10.**3**, 11.**1**, etc)
- **Build Number:** The Build Number is the number which appears after the second period, in the version number. This product will only show up to clients using a client with the Major Version listed above, and the Minor Version listed above, and this specific build number (10.3.**5575**, 11.1.**7787**, etc)
- **Is Eval:** This will set whether or not the client that is being passed to the Commerce Server by the emulator is an Evaluation account.
- **Language:** This will set what language the emulator will be passed to the Commerce Server.

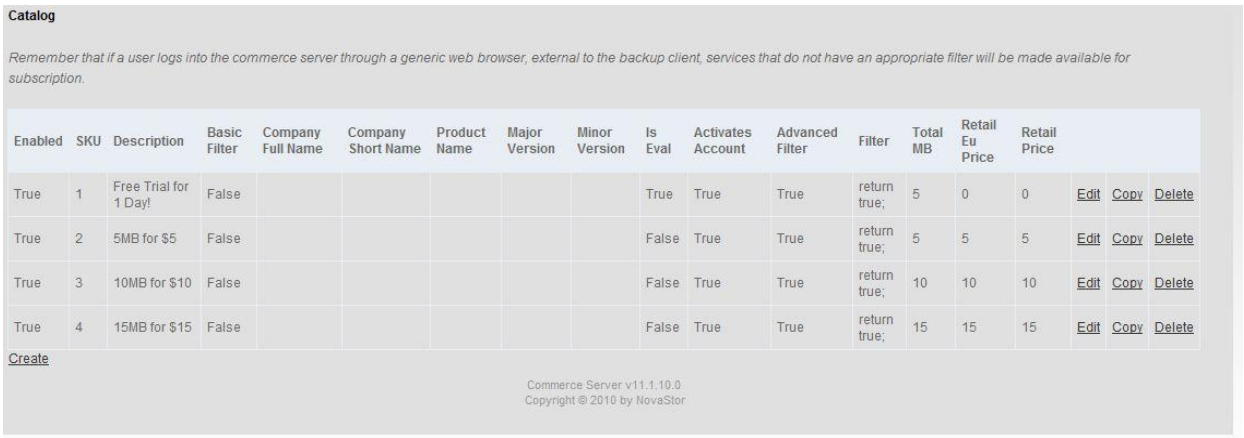

Change Password
Use the form below to change your password.
New passwords are required to be a minimum of 5 characters in length.
Account Information
Current password:
New password:
Confirm new password:
Change Password

Account Tab

From this screen you can change the logon password for your account. Simply enter your existing password, and then in the fields below enter your new password. Your new password must contain at least 5 characters.

Catalog Tab

The Catalog tab lists all of the products you have configured on the Commerce Server and allows you to make changes to them.



Catalog

Remember that if a user logs into the commerce server through a generic web browser, external to the backup client, services that do not have an appropriate filter will be made available for subscription.

Enabled	SKU	Description	Basic Filter	Company Full Name	Company Short Name	Product Name	Major Version	Minor Version	Is Eval	Activates Account	Advanced Filter	Filter	Total MB	Retail Eu Price	Retail Price			
True	1	Free Trial for 1 Day!	False						True	True	True	return true;	5	0	0	Edit	Copy	Delete
True	2	5MB for $5	False						False	True	True	return true;	5	5	5	Edit	Copy	Delete
True	3	10MB for $10	False						False	True	True	return true;	10	10	10	Edit	Copy	Delete
True	4	15MB for $15	False						False	True	True	return true;	15	15	15	Edit	Copy	Delete

Create

Commerce Server v11.1.10.0
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- **Enabled:** If this is set to true, it means the product is visible to clients connected to your Server.
- **SKU:** This is the internal SKU for your product. This number is what the Catalog is sorted by. This number will not be displayed to the customer
- **Description:** This is the description of the offer/product as it appears to the customer.
- **Basic Filter:** If set to true, whether or not this product will appear is based on the next 6 entries.
- **Company Full Name:** This product will only appear to customers using a client that matches this Company Full Name. This can be left blank so that prospective customers are not filtered out.
- **Company Short Name:** This product will only appear to customers using a client that matches this Company Short Name. This can be left blank so that prospective customers are not filtered out.
- **Product Name:** This allows you to offer special offers to customers based on the product they are using. This product will only appear to customers using a product that matches this name.
- **Major Version:** This product will only appear to customers using a client that matches this Major Version. This can be left blank so that prospective customers are not filtered out.
- **Minor Version:** This product will only appear to customers using a client that matches this Minor Version. This can be left blank so that prospective customers are not filtered out.

- **Is Eval:** If checked, this product will only appear to customers using an Evaluation/Trial client. If unchecked it will not show up to those clients in Evaluation mode.

- **Activates Account:** By default this should be set to True. If set to False, if a customer signs up for this account type they will not be automatically added to the Storage Server.

- **Advanced Filter:** If set to True, the basic filter settings will be ignored, and the advanced filter used instead. This filter uses JavaScript syntax. It is recommended to use the Sneak Peak URL Builder on the home tab to test any advanced filters made.

- **Filter:** The advanced filter will allow you to set up more complex scenarios to determine whether or not this product is displayed.

- **Total MB:** This value shows the total amount of storage available to individuals who select this option.

- **Retail EU Price:** This is the price for the product, displayed in Euros.

- **Retail Price:** This is the price for the product, displayed in Dollars.

- **Edit:** Clicking this link will allow you to edit this entry.

- **Copy:** Clicking this link will take you to a “create” screen with the settings from this product copied.

- **Delete:** This will delete this product from your catalog.

- **Create:** This will take you to a screen where you can create a new product.

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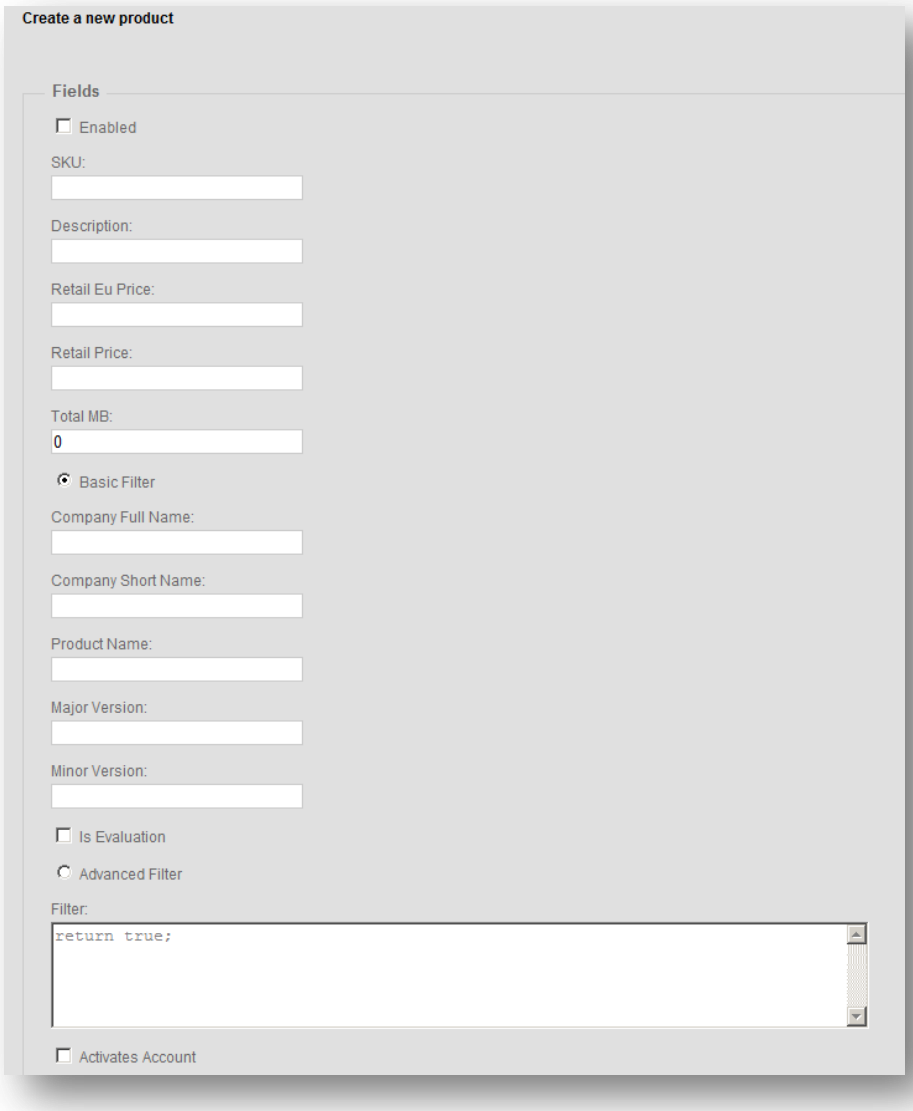
Create a new product



From the **Create a new product** screen you are able to configure new packages to be offered to users. These are the options:

- **Enabled:** If Enabled is checked, it means that the product is visible to clients connected to your server.
- **SKU:** This is the internal SKU for your product. This number is what the catalog is sorted by. This number will not be displayed to the customer
- **Description:** This is the description of the offer/product as it appears to the customer.

- **Retail EU Price:** This is the price for the product that will be displayed in Euros.
- **Retail Price:** This is the price for the product that will be displayed in Dollars.
- **Total MB:** This value shows the total amount of storage available displayed to individuals who select this option. It is important to be certain that this number matches the package configured on the Remote Manager Account Creation Settings.
- **Basic Filter:** If toggled on, whether or not this product will appear is based on the next 6 entries.
- **Company Full Name:** This product will only appear to customers using a client that matches this Company Full Name. This can be left blank to not filter out any prospective customers.
- **Company Short Name:** This product will only appear to customers using a client that matches this Company Short Name. This can be left blank to not filter out any prospective customers.
- **Product Name:** This allows you to create special offers to customers based on the product they are using, such as NovaBACKUP, Storageline, or Acme Backup. This product will only appear to customers using a product that matches this name. This can be left blank to not filter out any prospective customers.
- **Major Version:** This product will only appear to customers using a client that matches this Major Version. This can be left blank to not filter out any prospective customers.
- **Minor Version:** This product will only appear to customers using a client that matches this Minor Version. This can be left blank to not filter out any prospective customers.
- **Is Evaluation:** If checked, this product will only appear to customers using an Evaluation/Trial client. If unchecked it will not appear to those clients in Evaluation mode. Please note that it is not possible to have one entry that will appear to both evaluation and non-evaluation clients, but you can make a copy of your catalog item once entered for the other version.
- **Advanced Filter:** If toggled on, the basic filter settings will be ignored, and the advanced filter used instead
- **Filter:** The advanced filter will allow you to set up more complex scenarios to determine whether or not this product is displayed. The filter uses JavaScript syntax to create filters for which entries will, or will not, activates this particular filter.
- **Activates Account:** By default this should be checked. If set to false, if a customer signs up for this account type the customer will not be automatically added to the backup server.

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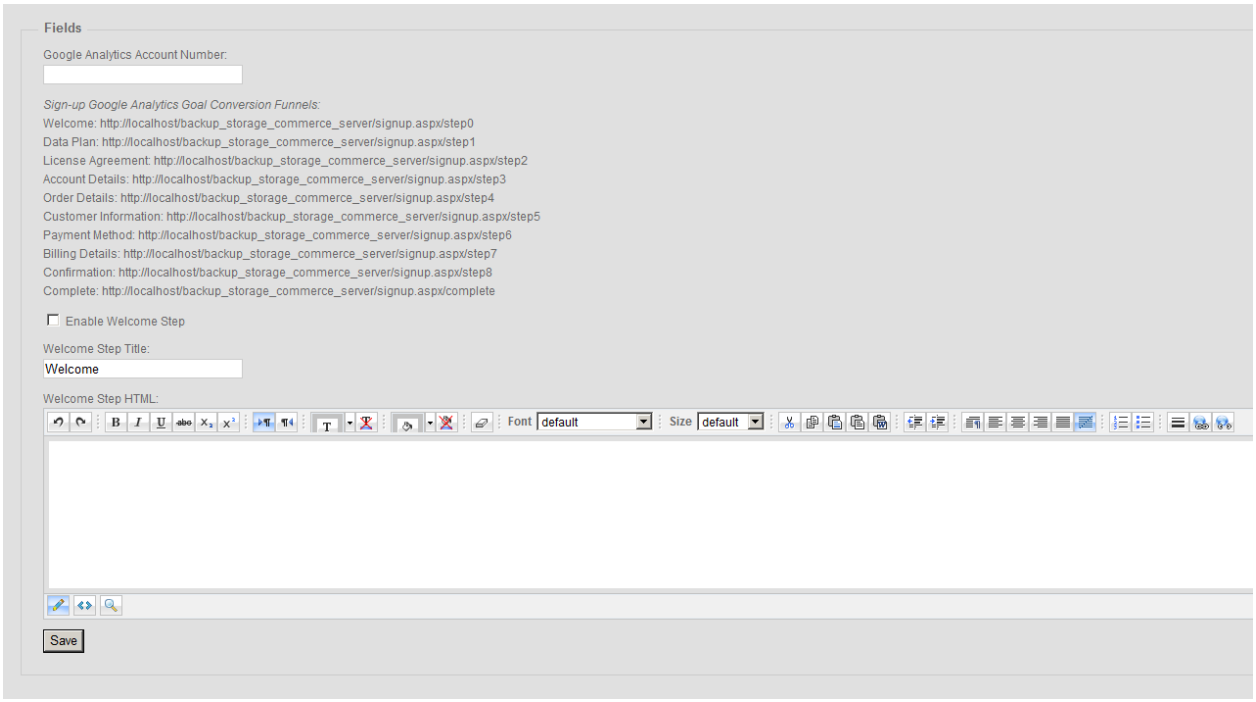
- **Account Creation Setting:** This entry must perfectly match the Name setting on the Remote Manager Account Creation Settings for the package you want to assign to this catalog item.

- **Management WebService URL:** This must match the Remote Manager URL.

- **License Agreement:** This will allow you to preview and change the license agreement for this product, in the 5 default languages supported by NovaBACKUP. By clicking the "Download" link next to the existing HTML you may download a template which can then be edited and re-uploaded via the **Upload New** link.

General Tab

The Commerce Server has Google Analytics code already included in the user signup process, and through use of this free service provided by Google it becomes easy to track the end user's progress through your signup process to find out where they are leaving the process, or to track conversions.



Google Analytics Account Number
By entering your Google Analytics Account Number here, the code will be updated on each page of the signup process to update Analytics with traffic information.

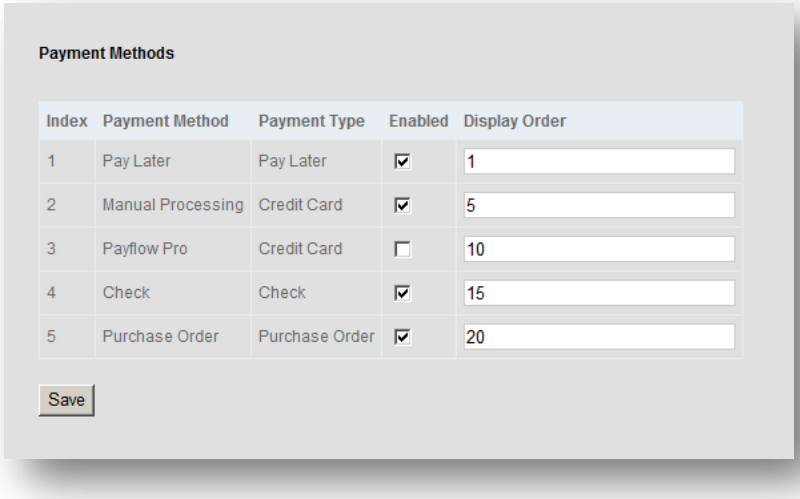
Sign-Up Google Analytics Goal Conversion Funnels
These are the URLs for tracking a customer's progress through your purchase process. These can be configured as goals within Google to help with 'at a glance' conversion statistics.

Enable Welcome Step: The Welcome Step is an initial welcome screen that displays before the end user receives the option to choose an installation package. If checked, when a customer begins the sign-up process, the customer will first come to this screen, otherwise the customer will be sent directly to selecting a package.

Welcome Step Title
This is the title of the Welcome Step. This appears at the top of the Welcome Step Screen

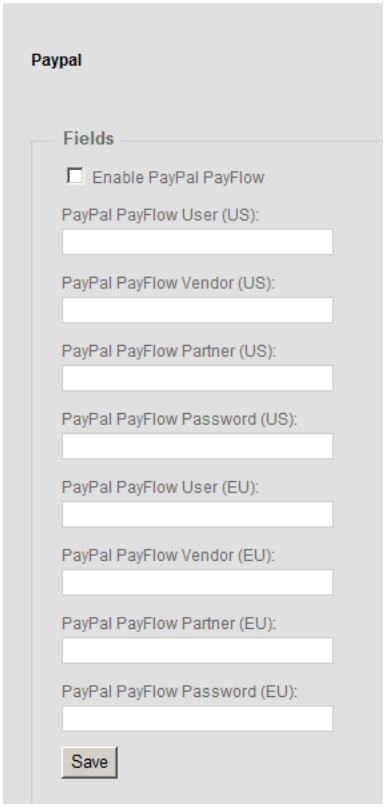
Welcome Step HTML
Here you can edit what the Welcome Step will look like using an HTML editor.

Payment Methods Tab



The display order here will organize the order in which the enabled payment methods appear visible to a customer. With the exception of Pay flow Pro, which is configured via the PayPal tab, all of these methods must be processed manually. Please note that if Manual Processing and Pay flow Pro are both checked, the customer would see 'Credit Card' appear twice.

PayPal Tab



Enable PayPal Pay Flow
This option must be checked if you intend to use Pay flow.

Pay Flow User (US)
This is the Pay Flow user name associated with the account you wish to use for any US payments.

Pay Flow Vendor (US)
This is the Pay Flow vendor name associated with the account you wish to use for any US payments.

Pay Flow Partner (US)
This is the Pay Flow Partner name associated with the account you wish to use for any US payments.

Pay Flow Password (US)
This is the password for your Pay Flow account for any US payments.

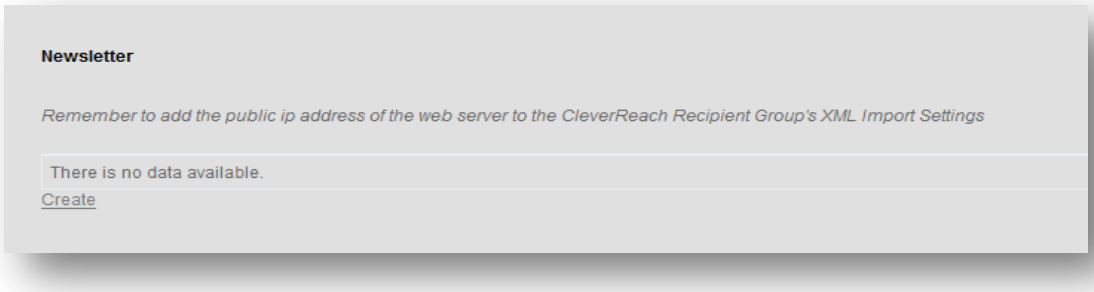
Pay Flow User (EU)
This is the Pay Flow user name associated with the account you wish to use for any EU payments.

Pay Flow Vendor (EU)
This is the Pay Flow vendor name associated with the account you wish to use for any EU payments.

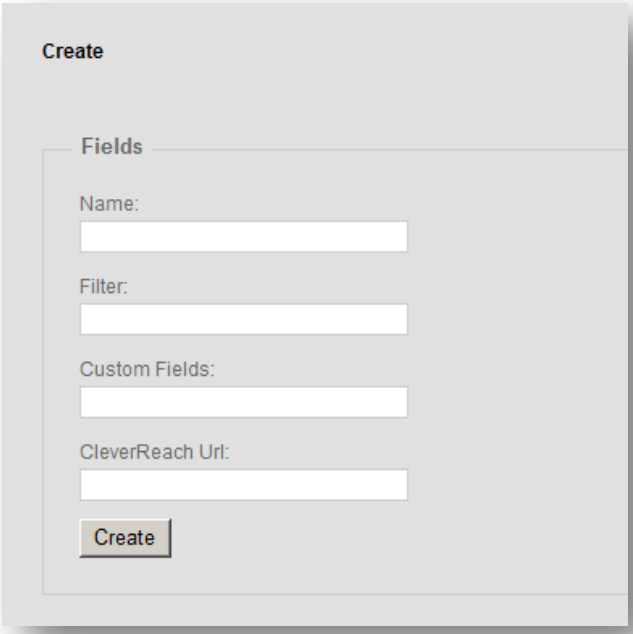
Pay Flow Partner (EU)
This is the Pay Flow Partner name associated with the account you wish to use for any EU payments.

Pay Flow Password (EU)
This is the password for your Pay Flow account for any EU payments.

Newsletter Tab


Newsletter
Remember to add the public ip address of the web server to the CleverReach Recipient Group's XML Import Settings
There is no data available.
Create

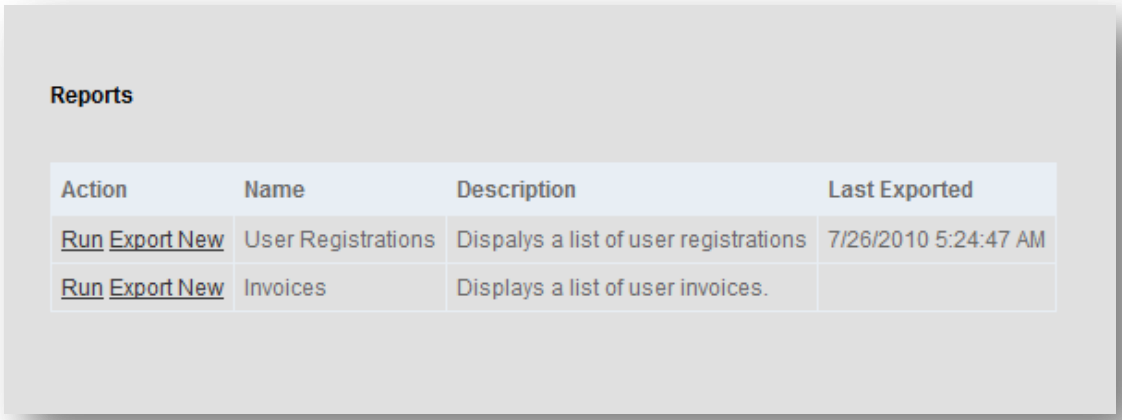
On this screen, integration of newsletter subscriptions may be processed utilizing an interface with Clever Reach (www.cleverreach.com), a third party mass E-Mail provider. On the initial page you may see any filters that have been created, and may create a new filter by selecting the "Create" link.



- **Name:** This is the descriptive name of the filter you wish to create
- **Filter:** This is the code for the filter itself. The filter uses JavaScript syntax to create filters for which entries will, or will not, activate this particular filter. If an entry would meet multiple filter conditions, it will only be applied to the first filter whose conditions it meets.
- **Custom Fields:** Currently, only the language custom field is supported.
- **CleverReach URL:** This is the URL generated by the XML Interface in CleverReach

Reports Tab

This tab allows you to run reports to view user registrations and invoices.

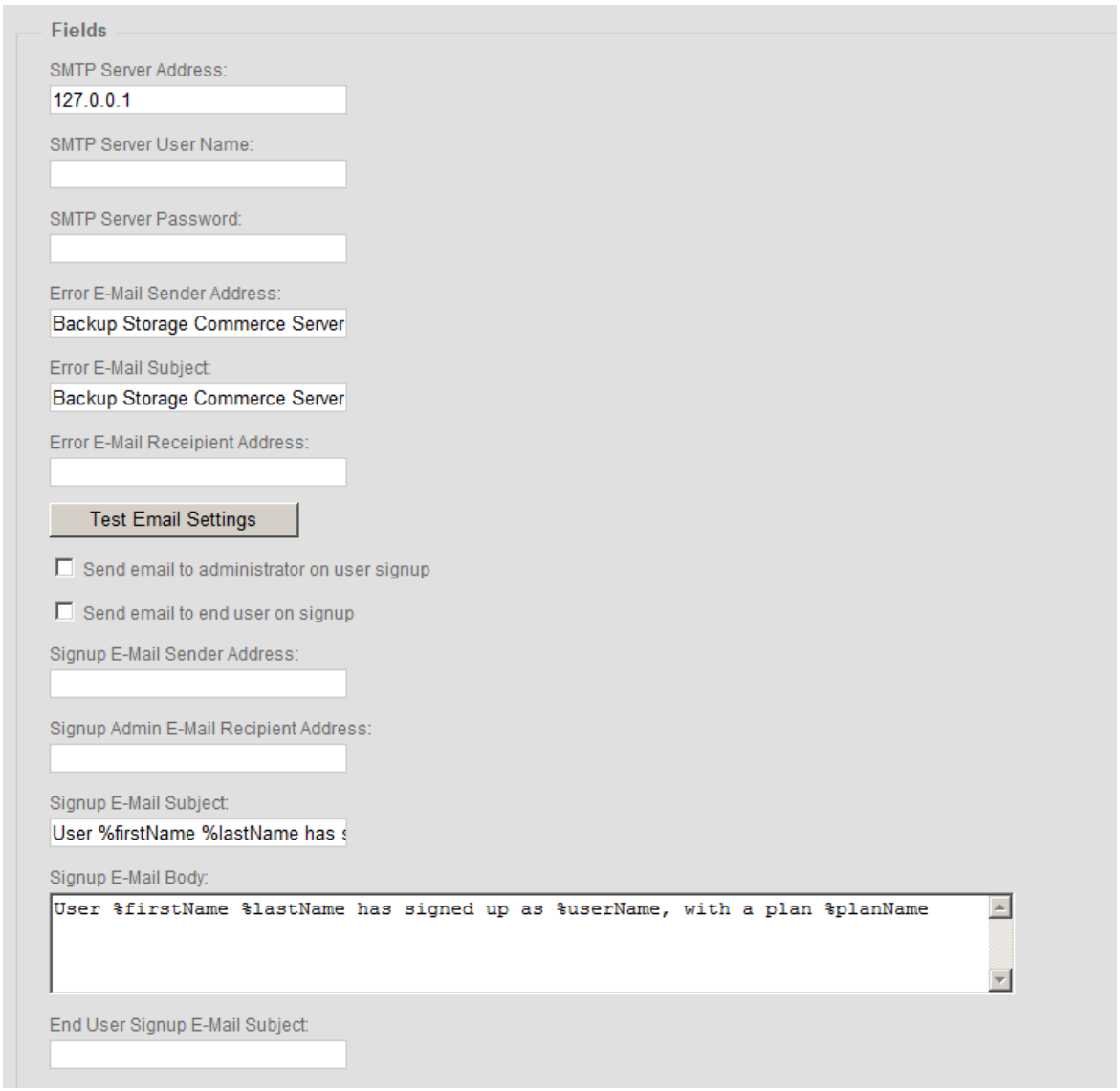


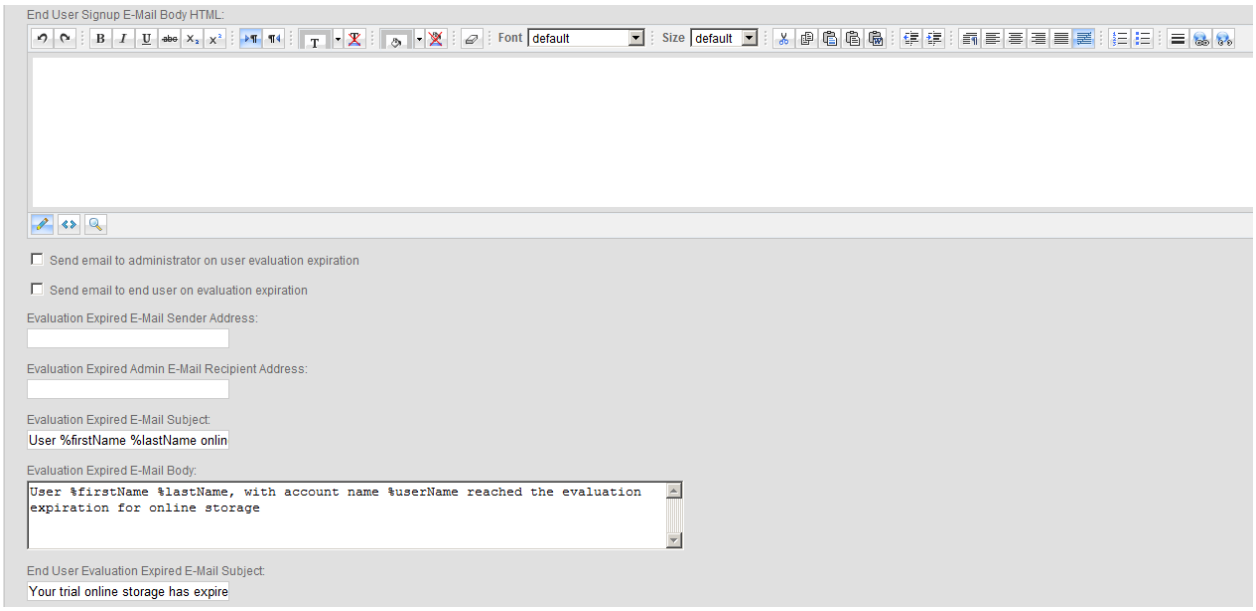
- **Export New:** If this link is clicked, it will allow you to download a CSV file that contains all the entries for this report

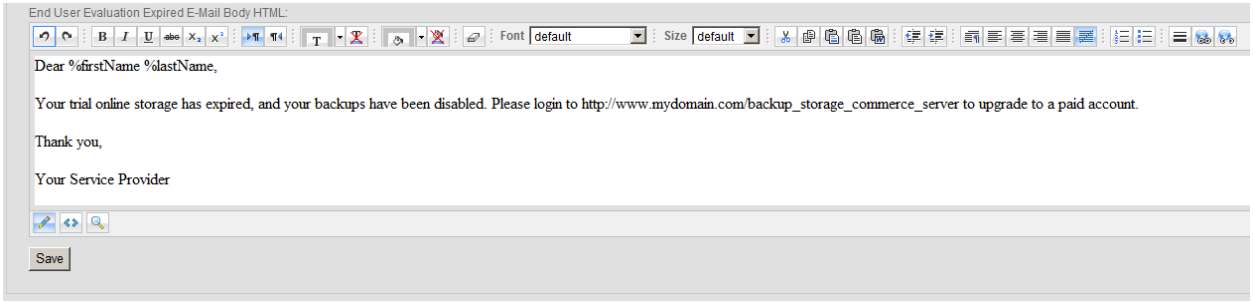
- **Run:** On the screen that this link takes you to, you can configure which columns will be included in the generated report.

Advanced Tab

The Advanced Tab allows you to configure how E-Mail will be sent from the Commerce Server. In the subject line, and body E-Mail sections below, it is possible to use the following variables: %userName, %password, %firstName, %lastName, %productName, %planName. This is displayed on the next page.


Fields
SMTP Server Address:
127.0.0.1
SMTP Server User Name:
SMTP Server Password:
Error E-Mail Sender Address:
Backup Storage Commerce Server
Error E-Mail Subject:
Backup Storage Commerce Server
Error E-Mail Receipient Address:
Test Email Settings
Send email to administrator on user signup
Send email to end user on signup
Signup E-Mail Sender Address:
Signup Admin E-Mail Recipient Address:
Signup E-Mail Subject:
User %firstName %lastName has s
Signup E-Mail Body:
User %firstName %lastName has signed up as %userName, with a plan %planName
End User Signup E-Mail Subject:


End User Signup E-Mail Body HTML:
Font default
Size default
Send email to administrator on user evaluation expiration
Send email to end user on evaluation expiration
Evaluation Expired E-Mail Sender Address:
Evaluation Expired Admin E-Mail Recipient Address:
Evaluation Expired E-Mail Subject:
User %firstName %lastName onlin
Evaluation Expired E-Mail Body:
User %firstName %lastName, with account name %userName reached the evaluation expiration for online storage
End User Evaluation Expired E-Mail Subject:
Your trial online storage has expire


End User Evaluation Expired E-Mail Body HTML:
Font default
Size default
Dear %firstName %lastName,
Your trial online storage has expired, and your backups have been disabled. Please login to http://www.mydomain.com/backup_storage_commerce_server to upgrade to a paid account.
Thank you,
Your Service Provider
Save

- **SMTP Server Address:** Here you can enter the IP address of the SMTP server that the Commerce Server will use to send out E-Mail.
- **SMTP Server User Name:** This is the user name used for authentication of the SMTP server.
- **SMTP Server Password:** This is the password used for authentication of the SMTP server.
- **Error E-Mail Sender Address:** This is the E-Mail address that error E-Mails will be sent from.
- **Error E-Mail Subject:** This is the subject line that error E-Mails will be sent with. In the subject lines of this E-Mail you may include the character {0} which will be replaced with the URL of the server on which the error happened. You may also use the following variables: %userName, %password, %firstName, %lastName, %productName, %planName.
- **Error E-Mail Recipient Address:** This is the E-Mail address that error E-Mails are sent to.
- **Test E-Mail Settings:** This button will test the E-Mail settings previously configured.

- **Send E-Mail to administrator on user signup**: If this button is checked, when a user signs up an E-Mail will be sent to the administrator.

- **Send E-Mail to end user on signup:** If this button is checked, when a user signs up an E-Mail will be sent to them.

- **Signup E-Mail Sender Address:** This is the E-Mail address that signup E-Mails appear to be sent from.

- **Signup Admin E-Mail Recipient Address:** This is the administrator E-Mail address that to which the signup E-Mail will be sent.

- **Signup E-Mail Subject:** This is the subject line of the signup E-Mail. The following variables may be used here: %userName, %password, %firstName, %lastName, %productName,%planName.

- **Signup E-Mail Body:** This is the body of the signup E-Mail that is sent to an administrator on new signups. The following variables may also be used: %userName, %password, %firstName, %lastName, %productName, %planName.

- **End User Signup E-Mail Subject:** This is the subject line of the E-Mail that will be sent to the end user when they have successfully subscribed to one of the products on the Commerce Server. The following variables may be used here: %userName, %password, %firstName, %lastName, %productName,%planName.

- **End User Signup E-Mail HTML:** This is the body of the E-Mail that is sent to an end user upon the successful subscription to one of the products on the Commerce Server. The following variables may be used here: %userName, %password, %firstName, %lastName, %productName, %planName.

- **Send E-Mail to administrator on user evaluation expiration:** If checked, when a user reaches the end of a free trial period, the administrator will be sent an E-Mail notification.

- **Send E-Mail to end user on evaluation expiration:** If checked, when a user reaches the end of a free trial period, the user will be sent an E-Mail notification.

- **Evaluation Expired E-Mail Sender Address:** This is the E-Mail address which the trial expiration E-Mail appears to be sent from.

- **Evaluation Expired Admin E-Mail Recipient Address:** This is the administrator E-Mail address to which expired trial notifications will be sent.

- **Evaluation Expired E-Mail Subject:** This is the subject of the E-Mail that is sent to an administrator when a trial subscription ends. The following variables may be used here: %userName, %password, %firstName, %lastName, %productName, %planName.

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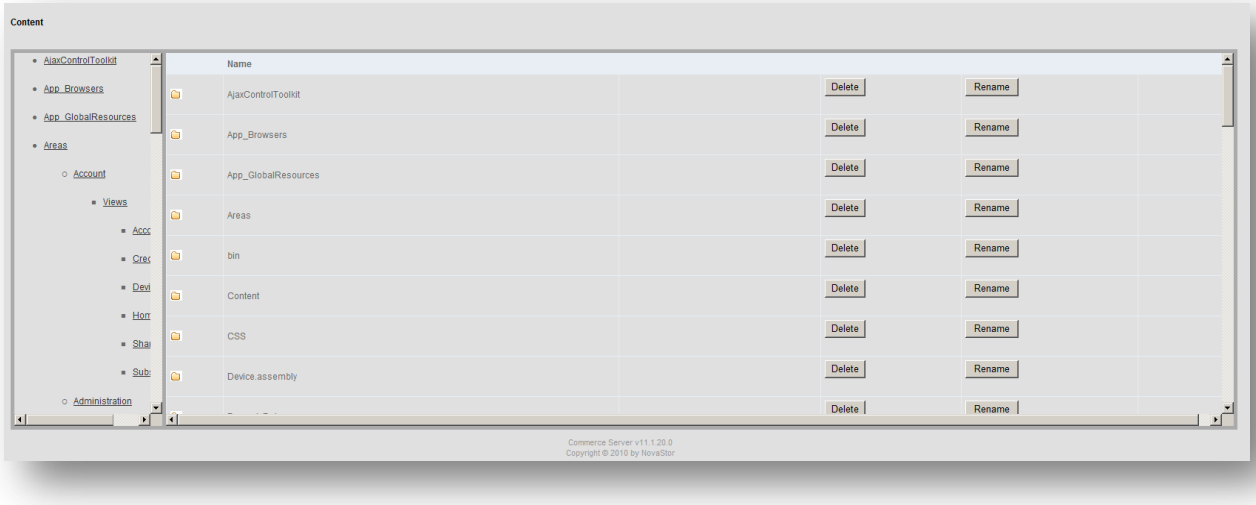
- **Evaluation Expired E-Mail Body:** This is the body of the E-Mail that is sent to an administrator when a trial subscription ends. The following variables may be used here: %userName, %password, %firstName, %lastName, %productName, %planName.

- **End User Evaluation Expired E-Mail Subject:** This is the subject of the E-Mail that is sent to an end user when a trial subscription ends. The following variables may be used here: %userName, %password, %firstName, %lastName, %productName, %planName.

- **End User Evaluation Expired Body HTML:** This is the body of the E-Mail that is sent to an end user when a trial subscription ends. The following variables may be used here: %userName, %password, %firstName, %lastName, %productName, %planName.

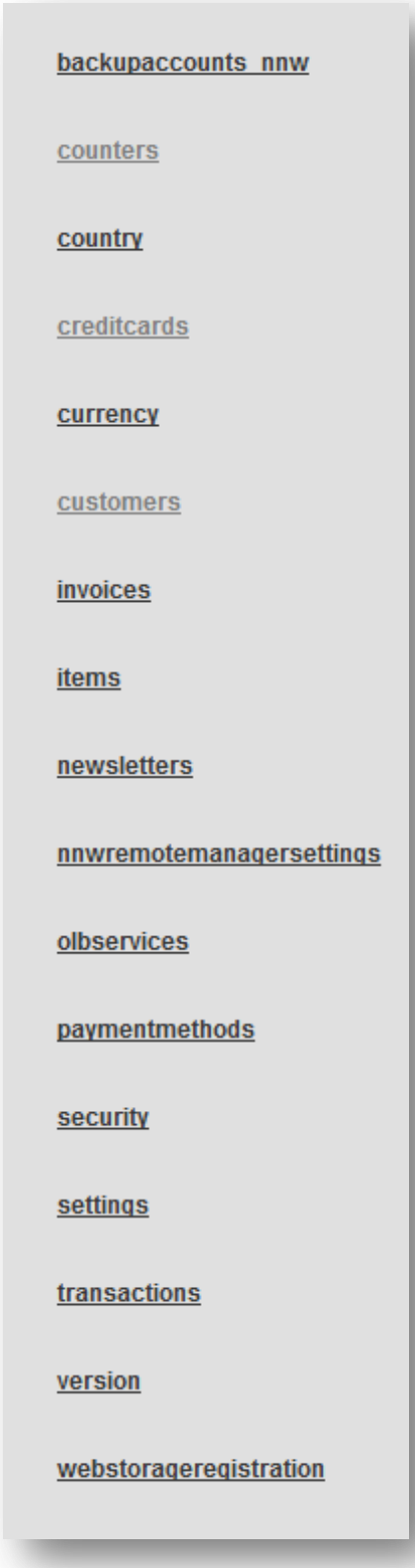
Content Tab



In the content tab you can view the files that make up the Commerce Server, using this tab you can edit, delete or rename the core files of the Commerce Server. It is possible to damage your install, so be certain that you have backed up the Commerce Server database before making changes, and that you are sure of what is being altered.

For more information about the fields and making modifications to the database files, please contact NovaStor Technical Support.

Database Tab



On the database tab, it is possible to view the database tables and add, delete or edit entries. The database tab will also enable you to insert new entries into the database tables. When you're editing the properties and fields of this tab, you are directly interacting with the SQL database.

This can be much simpler than opening SQL Management Studio, and opening tables, and having to dig and find what you need.

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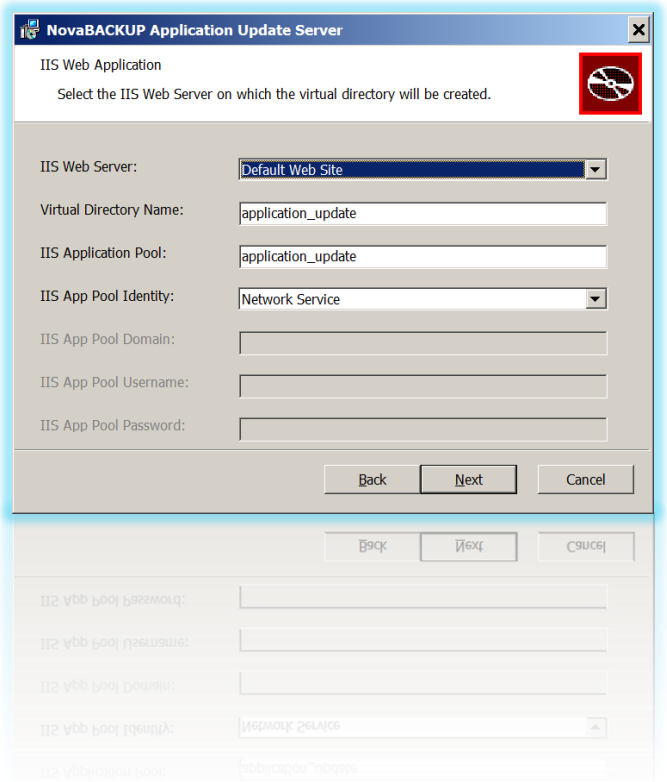
NovaBACKUP xSP Application Update Server



The NovaBACKUP xSP Application Update Server is designed to provide automatic updates or upgrades to your customers. It allows you to create custom upgrades for specific clients or client groups, and will enable those customers in those groups to download updates/upgrades by clicking **Check for Updates** in the Help screen within their client software. If no updates are available, the client screen will display a box indicating that the program is up to date.

Clients with specified Company and Product Names and Version information will be able to detect and download new updates when a) the update information is added to the Application Update Server database and b) the client application is configured to contact the Application Update Server.

Installing the NovaBACKUP xSP Application Update Server

The Application Update Server is not automatically installed when NovaBACKUP xSP Storage Server is installed. The Application Update Server has the following minimum requirements:

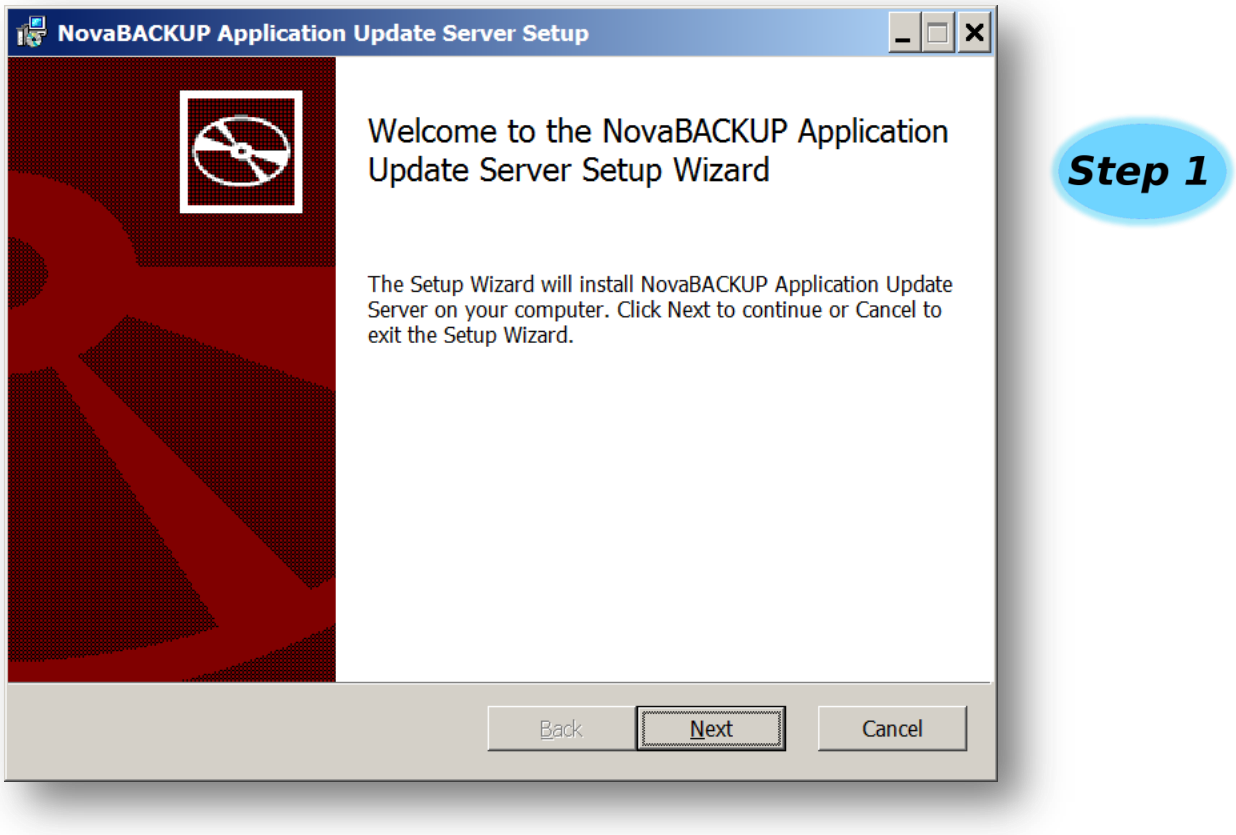
- Windows Server 2003 or 2008
- .NET 3.5 SP1
- IIS
- Microsoft Visual C++ 2005 SP1 Redistributable

- Microsoft Visual C++ 2008 SP1 Redistributable
- Connectivity to a Microsoft SQL 2005/2008 or MySQL 5.1 database server

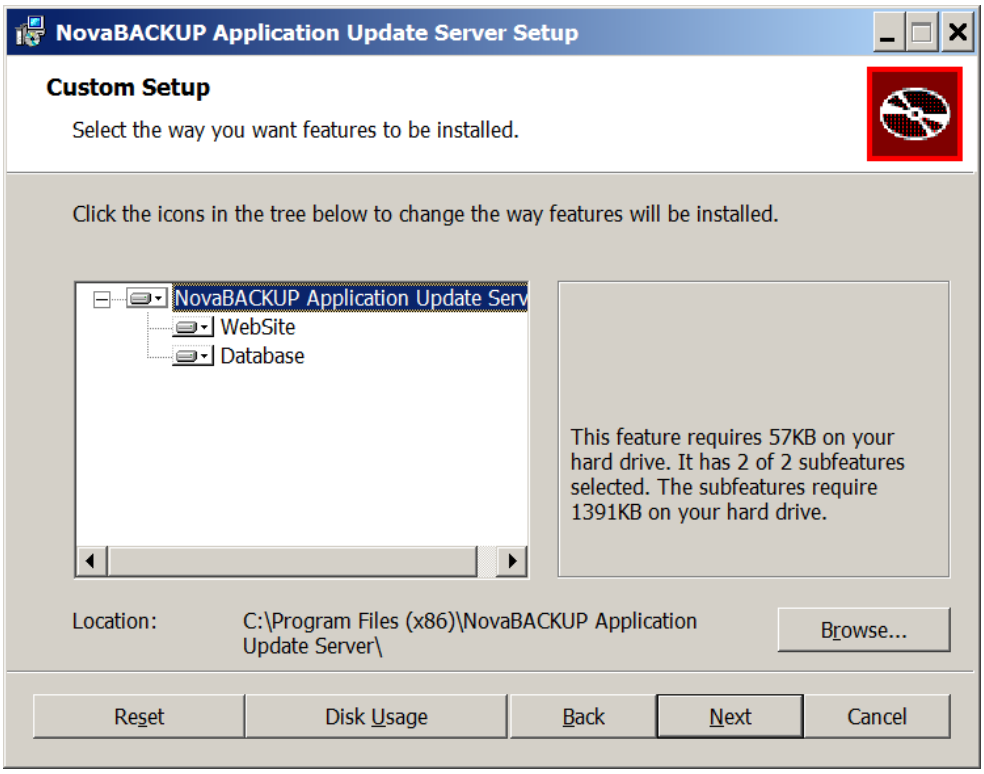
Tip!

Something to consider as you install this module is finding out how many different client builds have been deployed in the field. You will need to know because the different build numbers are entered into the application update database later on. If you have multiple builds such as 11.0.16 and 11.1.22, make sure you have submitted and downloaded the setup file on the builder website for 11.1.28 that these clients will need to upgrade to.

To begin installing the Application Update Server, click on Setup.exe. When the setup begins, the installation screen is shown, as seen on the next page.

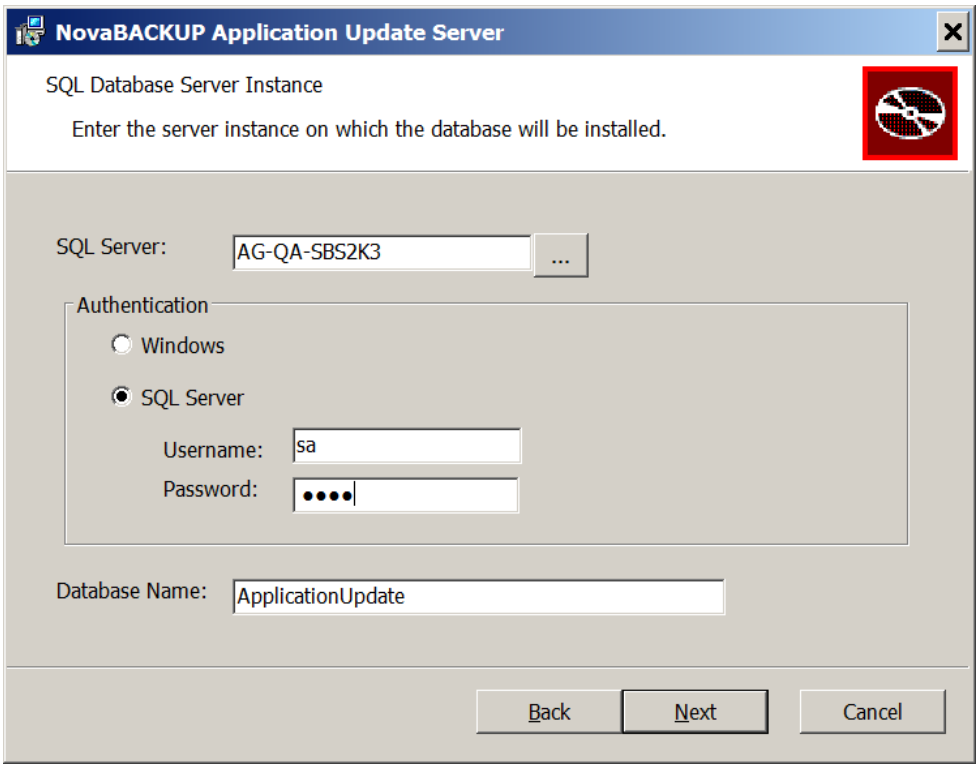

NovaBACKUP Application Update Server Setup
Welcome to the NovaBACKUP Application Update Server Setup Wizard
The Setup Wizard will install NovaBACKUP Application Update Server on your computer. Click Next to continue or Cancel to exit the Setup Wizard.
Back
Next
Cancel
Step 1

Clicking **next** will launch the Application Update Server setup wizard.


NovaBACKUP Application Update Server Setup
Custom Setup
Select the way you want features to be installed.
Click the icons in the tree below to change the way features will be installed.
NovaBACKUP Application Update Serv
WebSite
Database
This feature requires 57KB on your hard drive. It has 2 of 2 subfeatures selected. The subfeatures require 1391KB on your hard drive.
Location:
C:\Program Files (x86)\NovaBACKUP Application Update Server\
Browse...
Reset
Disk Usage
Back
Next
Cancel

Step 2

The Setup application gives you a number of options. To proceed with the installation of the Application Update Server, click **next**. In the following screen, select a Server Instance for the SQL server that is being used by NovaBACKUP xSP.



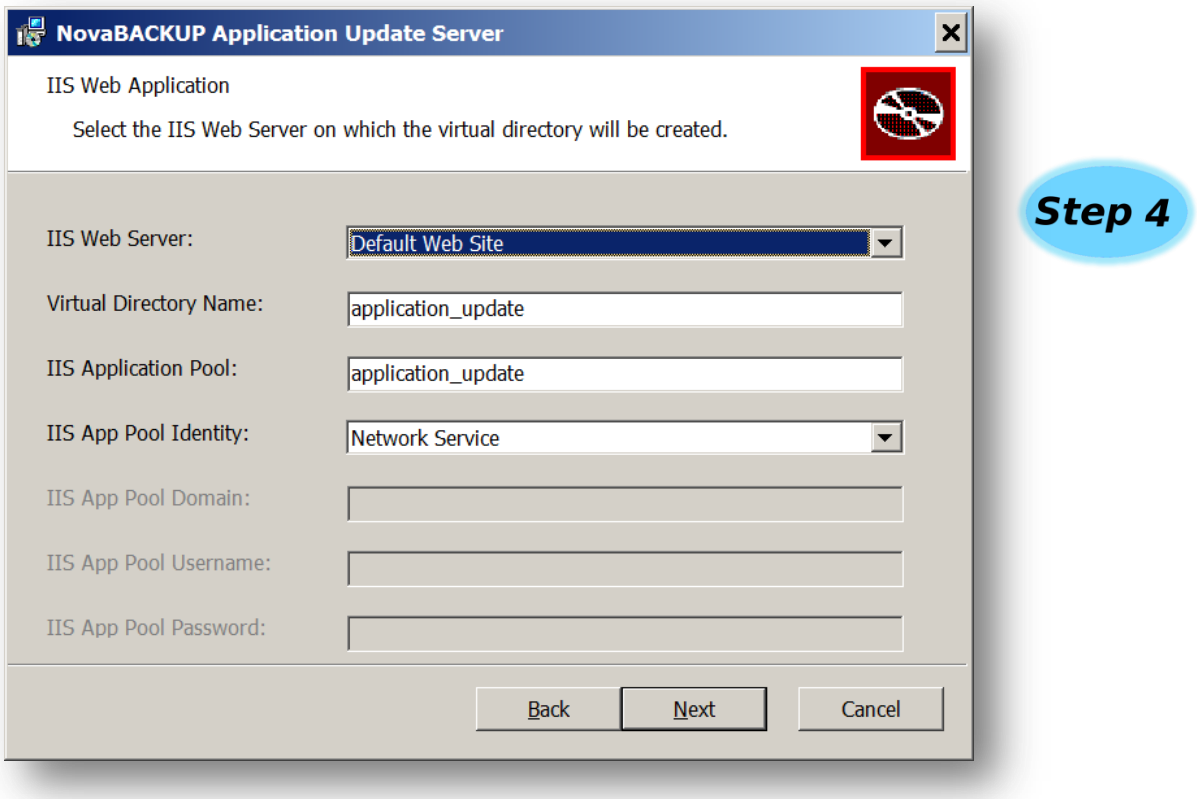
Step 3

The SQL Server instance that you are using to manage the NovaBACKUP xSP database should be shown on the screen. If you are using a different instance, you may select it from the Browse tab (…) on this menu. You must also authenticate this instance of SQL server. We recommend that use SQL Server Authentication, rather than Windows Authentication. We also recommend that you always use the Username **sa**, as shown above. The password is the one used to access the SQL Server used by NovaBACKUP xSP. The Database Name is **ApplicationUpdate**.

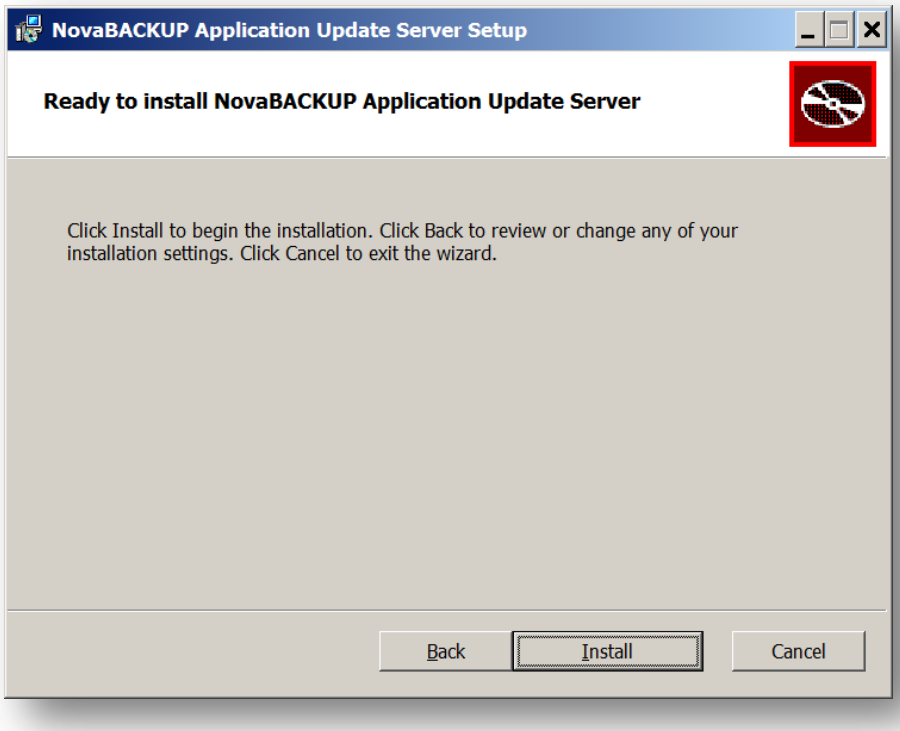
Info!

If you have entered an incorrect password, or have selected the wrong instance of your server, your request to move the next screen may not complete.

Once the above fields have been filled in, pressing **next** will load the IIS Web Application screen. The IIS Web Application, seen here, will open:

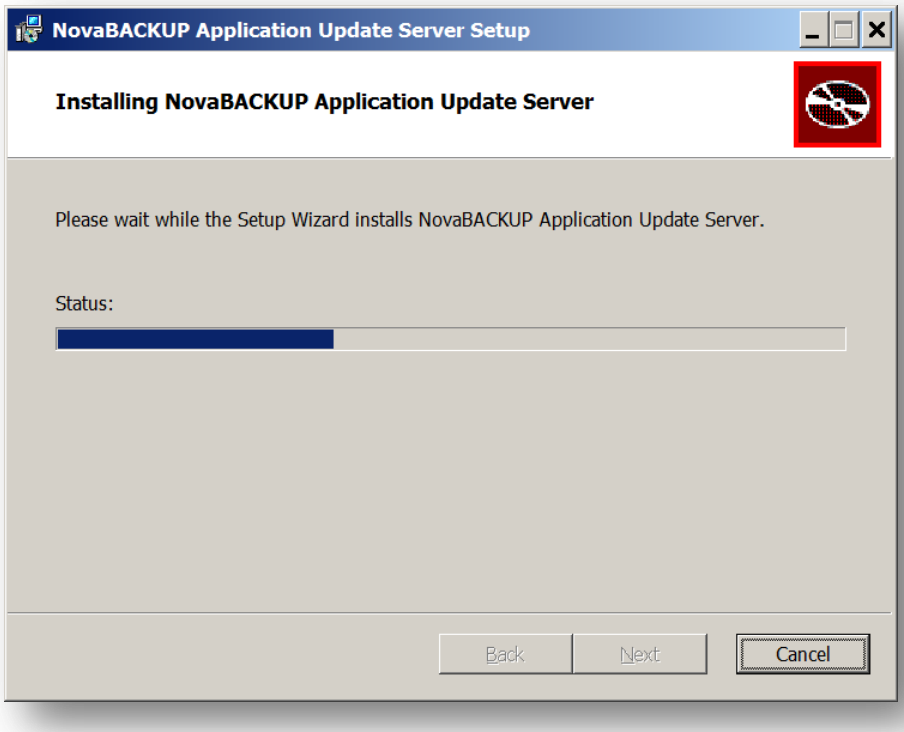


The fields will be automatically populated when this screen is opened. **Always use the default website setting for the IIS Server.**

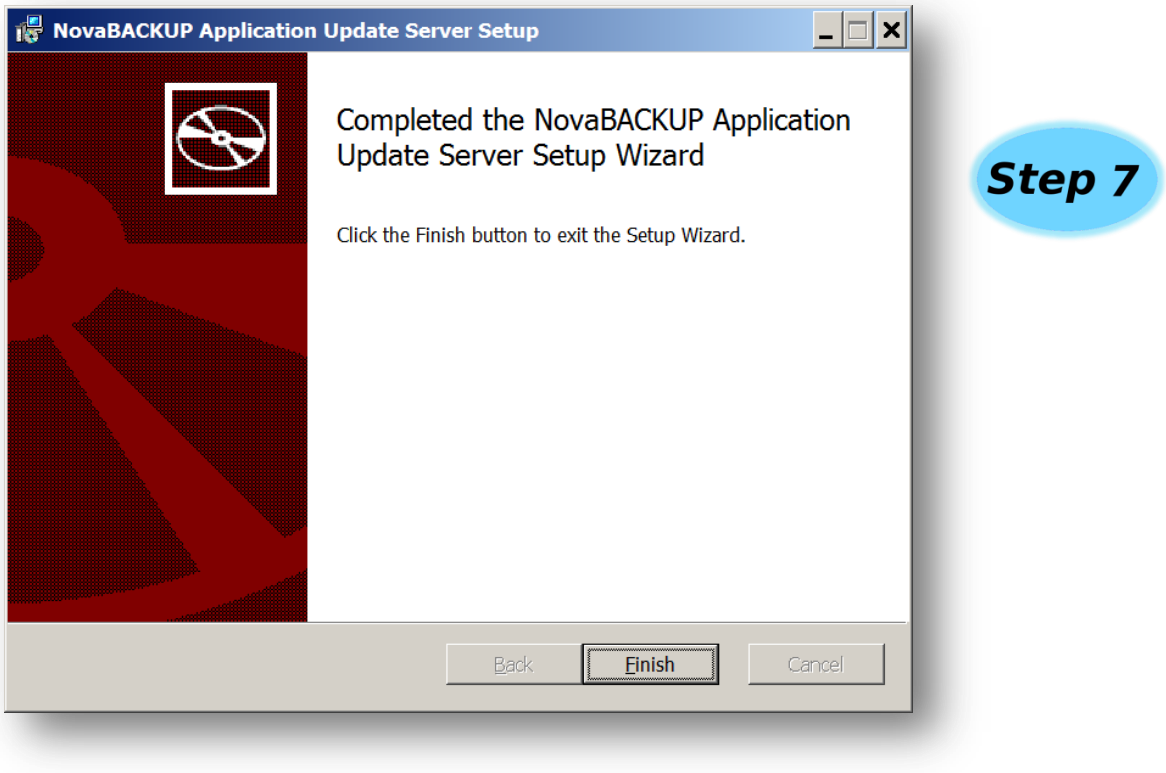

NovaBACKUP Application Update Server Setup
Ready to install NovaBACKUP Application Update Server
Click Install to begin the installation. Click Back to review or change any of your installation settings. Click Cancel to exit the wizard.
Back
Install
Cancel

Step 5

Click on **Install**, and the application will begin installing. It may take a few minutes for the application to install. While the installation is proceeding, you will see a progress screen:



Step 6



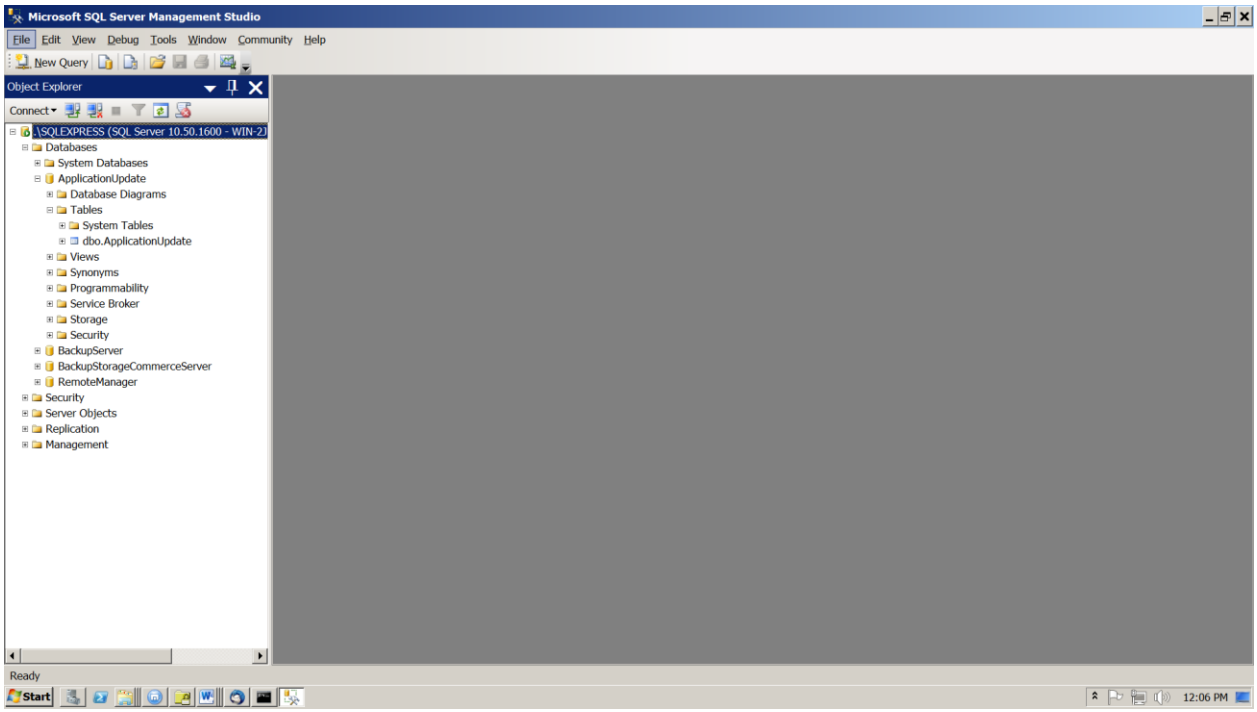
When you finish, the screen will close.

Using NovaBACKUP xSP Application Update Server

In order to use the Application Update Server, you must launch the version of SQL Server (or MySQL) that is being used as the database for NovaBACKUP xSP. To do this, select this version of your SQL server from the Start menu. (You may have to click All Programs to make the SQL server visible) Select **SQL Server Management Studio**.

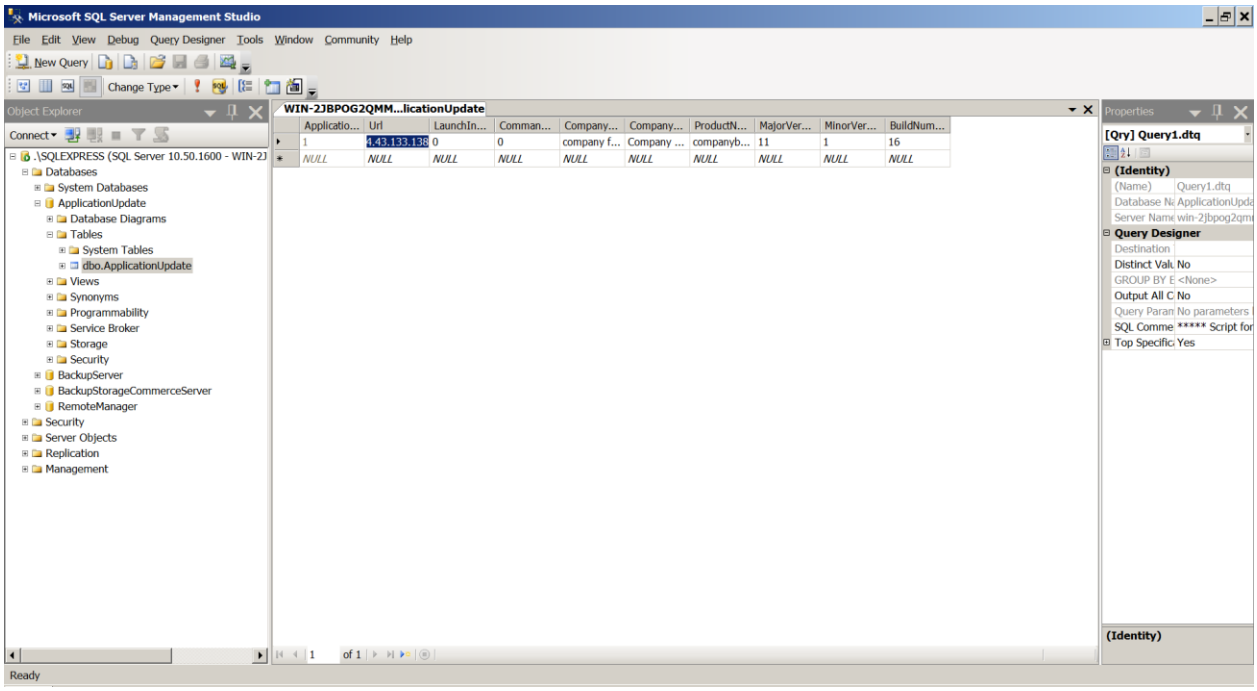
Select the database engine and click **Connect**, and you will be connected to the database.

You will see the Microsoft SQL Server Management Studio screen as displayed on the next page:



Click to open **AutoUpdate->Tables->.** Next, RightClick on **dbo.ApplicationUpdate**. Depending upon which version of SQL Server you are using, the selection options are different. In SQL Server 2008, select **Edit Top 200 Rows**, for SQL Server 2003, select **opentable**.

A table, showing the stored settings for Application Update will be displayed. The table shown here includes settings for one update client.



The field descriptions are fairly obvious. Please leave the Application field blank – a number will be assigned to it when the cursor is moved up or down.

The URL field should include the URL or the IP address of your NovaBACKUP xSP Storage Server. We recommend setting **Launch in Browser**, and **Command Line** fields to 0. Your company's full name goes into the **CompanyFullName** field; your company's short name goes in the **CompanyShortName** field. Similarly, the name of the product (if you are renaming the NovaBACKUP client application to one that you assign to it) goes into the **ProductName** field, the major version number, minor version number, and build numbers go into the appropriately named fields. Pressing the **down-arrow** adds the line to your database.

Save the file, in order to save your changes.

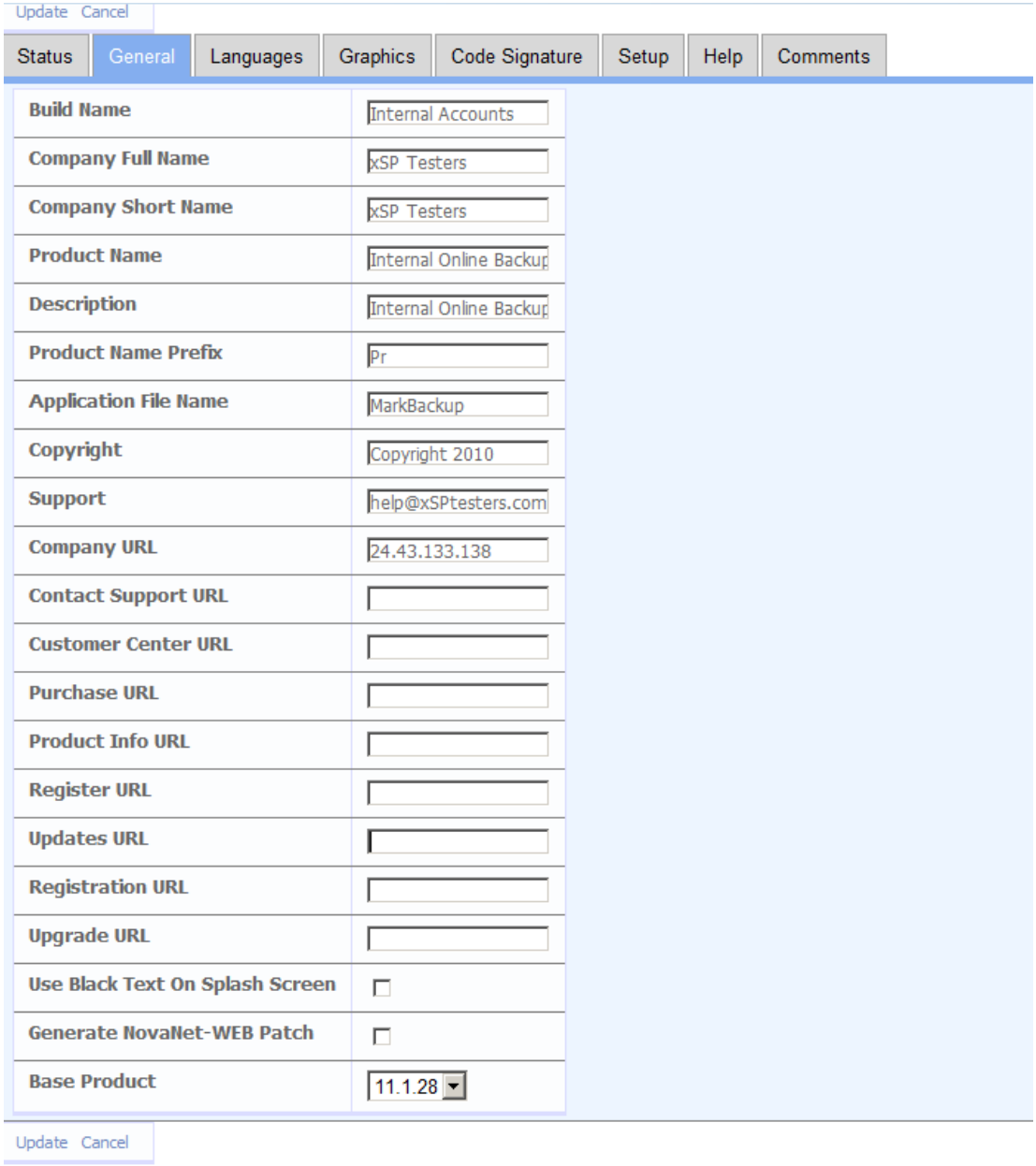
You may add or modify this data as needed. If you have multiple customers or groups of customers, you can specify which update can be provided to each user or group. Based on your settings for the client or group, the appropriate update file will be provided, when available.

Enabling customers to perform updates

Although you have configured the Application Update Server, there is one more step required to give your customers the ability to update their client application. You must set the Storage Server URL inside the client application.
To do this, go to http://builder.NovaStor.com.

Note: If your browser adds www to the URL, you won't connect to the Novastor Builder.

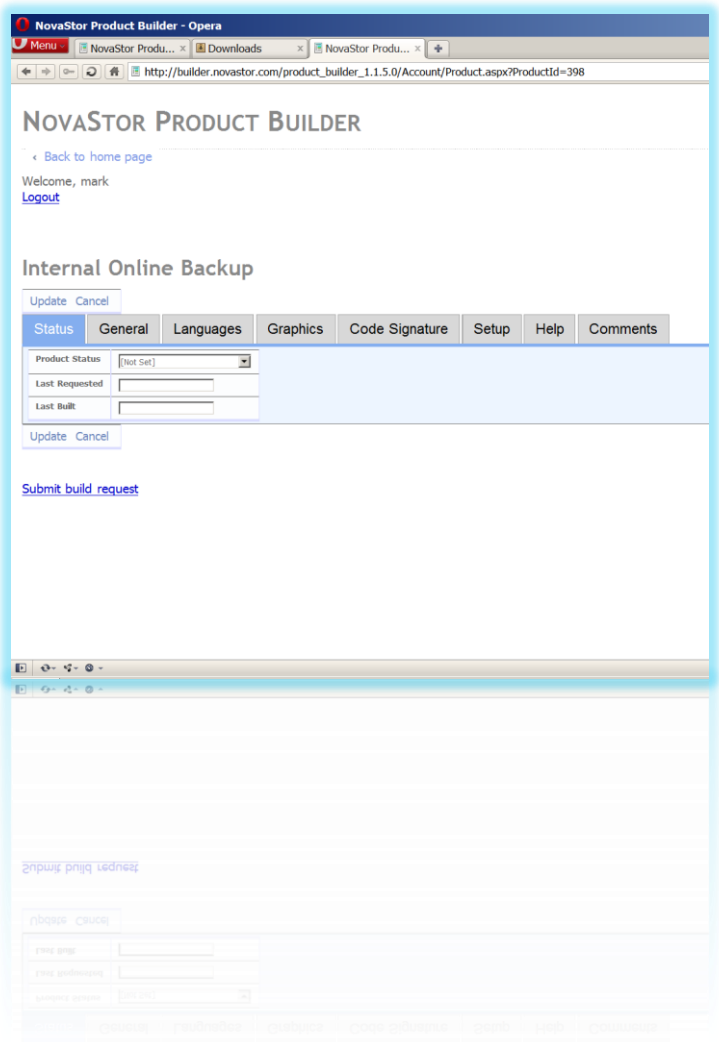
From the Builder application, enter the URL or IP Address for the Application Update Server in the Updates URL on the General Tab.



For more information about using Builder, please see documentation on the Builder Module in this User Guide.

If you want to add Updates to an already created Client application, you should resubmit your request to NovaStor to create an updated version of the application.

NovaBACKUP xSP Product Builder



NovaBACKUP xSP Product Builder is the module used to build customized client-installable software, using NovaBACKUP as its core. This module allows you to pre-configure the application for your clients. You can define your own logos, create links to your NovaBACKUP xSP servers, and do many more things to create a backup and restore application for your users. With NovaBACKUP xSP Builder, you can create links to your own NovaBACKUP xSP servers, apply custom graphics, create custom help screens and menus, and enable a client application that can have as much – or as little – evidence of being a NovaStor product as you wish.

Creating the client application is not automatic – NovaStor will build the client, based upon settings that you create at NovaStor's Builder site.

To get to the client creation site, type: **builder.NovaStor.com**. Please note that if your browser inserts **www.** In front of **builder.NovaStor.com**, you will not link to the Builder site. The site will open, presenting the sign-in screen. Log in or create a new user account. If you create a new user

account, NovaStor will validate your login information and send you a confirmation that an account has been created. Depending upon the version of NovaBACKUP xSP that you have licensed from NovaStor, you may be able to create one or more client applications.

The welcome screen will show you the status of the client software builds that you have created. To create a new client application, click on **Create a new product**.

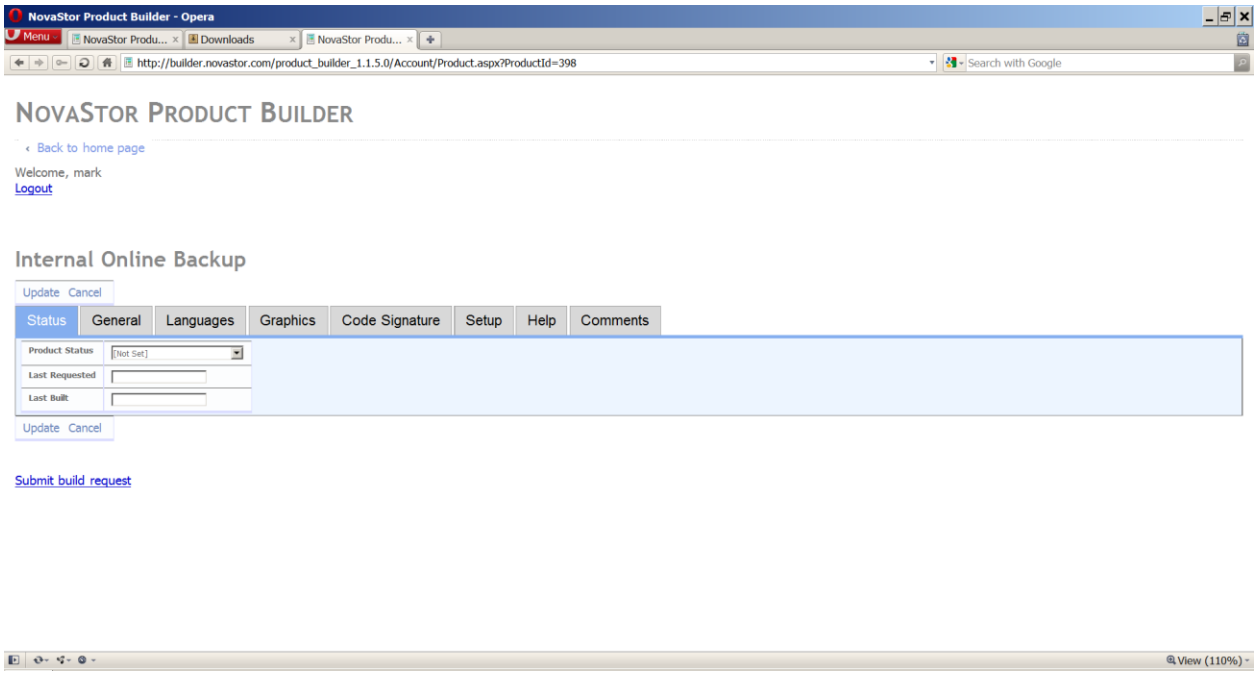
A multi-tabbed interface will open, with the following tabs:

- **Status**
- **General**
- **Languages**
- **Graphics**
- **Code Signature**
- **Setup**
- **Help**
- **Comment**

Status

The Status screen is not the first screen that normally appears when you log in. It won't appear until you select **Update** or **Insert** on one of the Builder tabs.

The Status screen, seen here:



This screen provides the status of the client application you are designing or have submitted to

NovaStor for creation, the date of your last request, and the date of the last build of the application.

General

The opening screen, General, provides general options that will apply to the client software packages that NovaStor creates for you. It will contain the general information that will be used for all packages. (You can, however, modify any of the fields on this screen in order to further customize the settings).

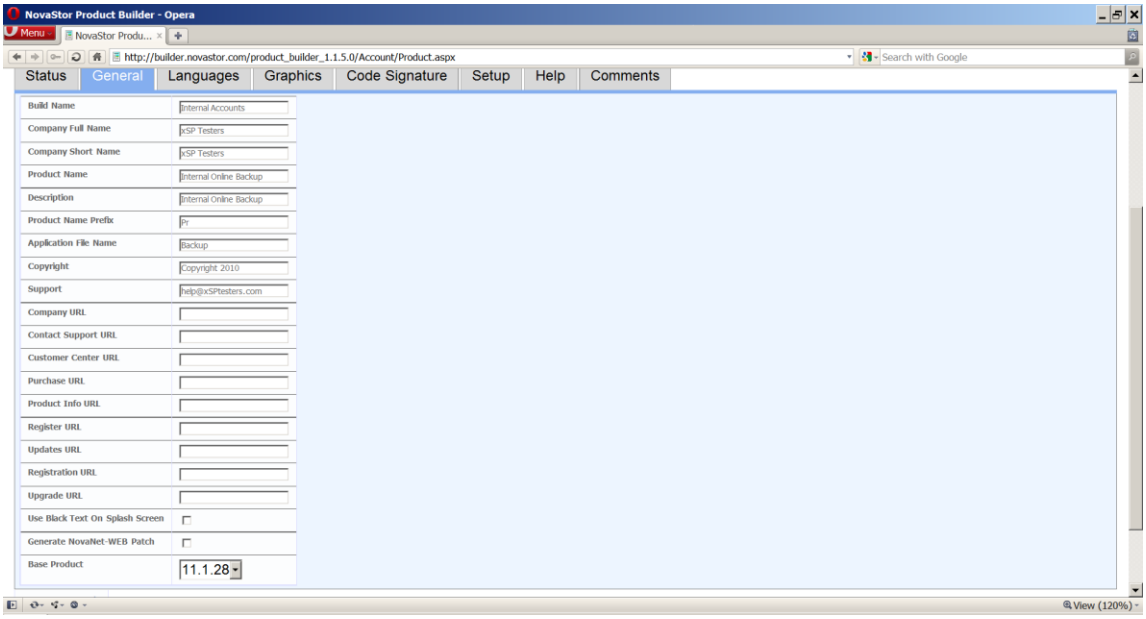
The options on the screen are mostly self-explanatory. In the example shown below, a client application for internal clients (clients within a local Intranet) is developed for a fictional company called xSP testers. Not all fields have been populated – these fields can be completed when you create your specific accounts.

The option to "Use Black Text on Splash Screen" is provided for users who use a light colored splash screen. On such a screen, text written on top of the splash screen may be hard to read, or may disappear entirely. NovaBACKUP xSP's default is White Text. By selecting the 'Use Black Text on Splash Screen' option, your text, shown against your light background, will be easier for the client to read.

The option 'Generate NovaNet-WEB Patch' creates a patch file that updates the client who is currently using NovaNet-WEB for online backup.

'Base Product' provides you with multiple choices. The most current version of the backup application and some earlier versions are available. Use the button at the right side of the date selection box to scroll to the version you wish to use.

The screen should look something like this:



In most cases your screen will have additional fields representing your company's URL and related special URLs for the specific functions you are defining.

When you have completed filling out the information in the General Tab, click **Insert**. The fields will be saved. Click Edit, and you will be able to continue to edit your custom application.

Languages

This tab allows you to select which languages you wish to support. If there are any languages you don't want to support, you may delete them by clicking on the Delete button.

Graphics

It is worth noting that the custom application you will be providing to your clients is a customized version of NovaBACKUP, a well-reviewed, industry leading backup product from a company with more than fifteen years of experience creating backup software. The value of the Novastor name and graphics may enhance the perceived value of your online backup service. However, if you prefer to supply your own graphics, NovaBACKUP xSP enables you to do this on the Graphics screen.

The Graphics tab provides a screen that enables you to choose the NovaStor default graphics or to use graphics that you provide for many of the visual elements in the client application. These graphics appear in a number of places:

- Banner Left
- Bottom Left
- Icon
- Logo
- Long Banner Left
- Setup Header
- Setup Page
- Splash Screen
- Animated Bitmaps 1-4
- Tray Green
- Tray Orange
- Tray Red

All of the items in the template may be used. Each element name is followed by a list of dimensions for the item. For example, **Try Red** uses a 24 x 24 icon.

You may use your own graphics for any of these elements by clicking Browse and selecting the

appropriate graphic. When you download the element, Builder will display the element on the Graphics screen.

To save your graphic settings, press **Insert**, and the Status tab will open. Click **Edit**, and then click another tab. In this case, click the Code Signature tab.

Code Signature

The Code Signature is a statement that appears on the client software that identifies 'Code By…' If you don't change this setting, NovaStor will be listed as the source of the code. If you choose to use your company name, the name you use must have an associated certificate issued by a certification authority.

Setup

Setup is where much of the information required for the client to interface with the server is set up.

The top line is where you insert the static IP address or URL for your NovaBACKUP xSP Storage Server. When the client initiates on online backup, the request is directed to this IP address or to the IP address associated with the URL.

The next line asks for a URL for the Commerce Server. When the client wants to manage its account, the system will direct it to your Commerce Server where the account maintenance modules are running. Maintenance tasks include such elements as selecting a backup product, setting up payment for backup services, and many more options.

BackupClient.ini, config.ini and exc.ini are pre-written as templates. You may use these templates to control the client, configuration and exclusion files. By clicking View to the right of any of these .ini file names, then Open, you can view these files. These files, by default, have none of the options activated (all have the # at the beginning of the line). To activate one of the options, remove the # and save the file, giving it a new name. The new file can be accessed as a custom file.

Finally, you have the option of selecting whether your client application will have Anti-Virus or Disaster Recovery modules included. Clicking on the box will enable these options.

Help

NovaStor has created Help files for the client applications in multiple languages. These help files, in .chm format, contain multiple references to NovaBACKUP and feature the NovaStor logo on many screens. The default is to enable these help files, although the files can be saved and modified so that these graphics and references to NovaBACKUP and NovaStor are replaced by your name and logos. To make these replacements, click the View button to the right of the Template file name and click Save. The saved file can then be edited, using the appropriate

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software, and selected as the Help file.

If you choose to create custom help files, you can click on the Custom radio button, browse for the custom file, and download it. When the application is built, your custom file(s) will become the help files for the client application.

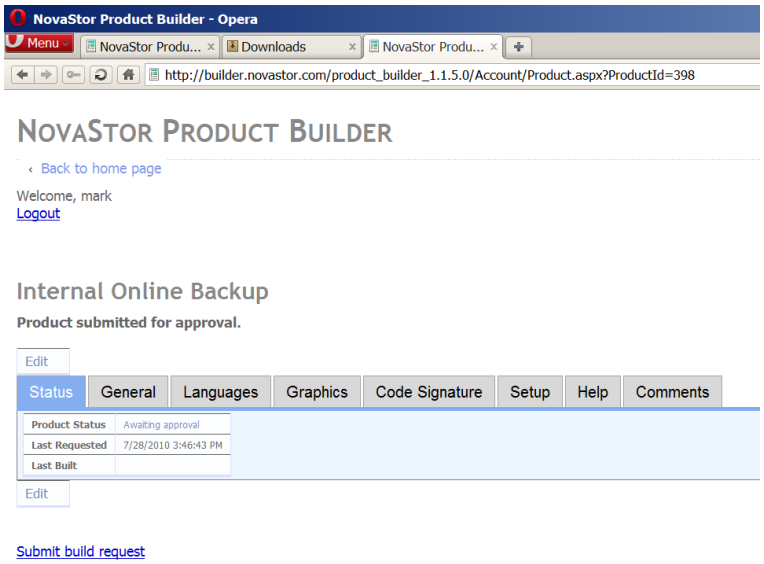
Comments

If you want to send a comment to the NovaBACKUP xSP Product Builder administrator, they can be included in the Comments box.

Sending your Client Application Settings to NovaStor

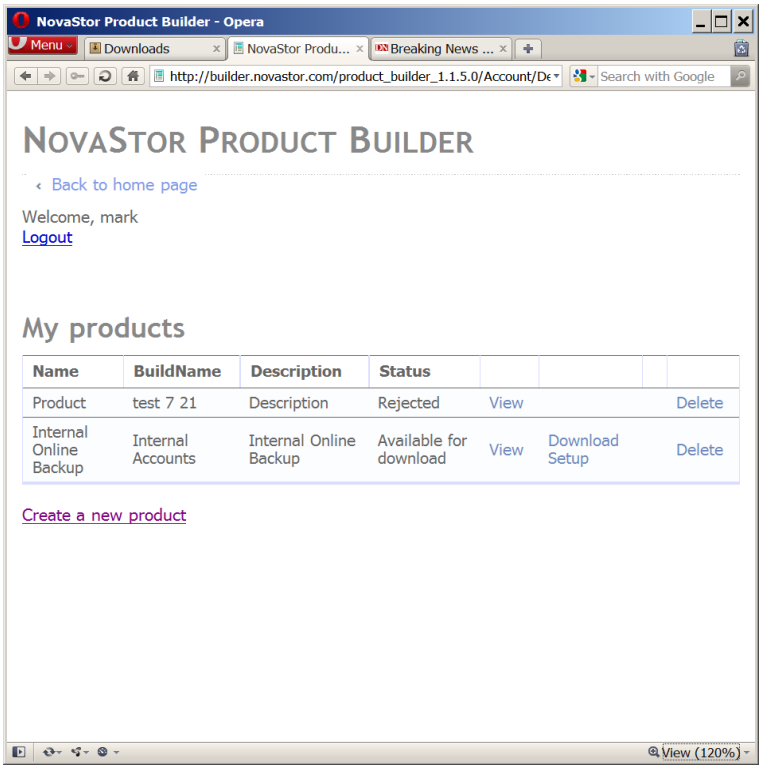
Once you have finished creating the settings and options for your client application, **click Submit build request**, and the file will be saved and sent to a NovaStor specialist who will create the custom application. You will receive E-Mail when the application is ready, and will be sent a link to download the EXE and PAT files. If there are errors in your settings, NovaStor will contact you.

After you submit your build request, the Status tab will display the current status of your request, as seen on the next page:



When you log back in to the NovaStor Product Builder, you can check the status of your Build Request. If your request was completed, the status menu will give you a Product Status of **Available for download**. At this point, you can View the settings for the Client Application, Delete the Client Application, or click **Download Setup**.

The Status screen, with the status of the client application build and options looks like this:



When you click Download Setup, you have the following options: Run, Save, Cancel, Help. In most cases, if you're ready to download the client application, click Save, and then provide a target directory to which the files will be saved. If you choose to run the application, it will be downloaded and installed – if your goal is to distribute the custom client application to subscribers, the file should be downloaded and saved to a directory from which it can be accessed and sent to the subscribers.

The file received is an .EXE file. This file may be sent to subscribers, or it can be burned to CD-ROM or DVD, or transferred onto a flash drive for receipt by your subscribers. Once the application file is double-clicked, the installation will begin.

About Timing Out

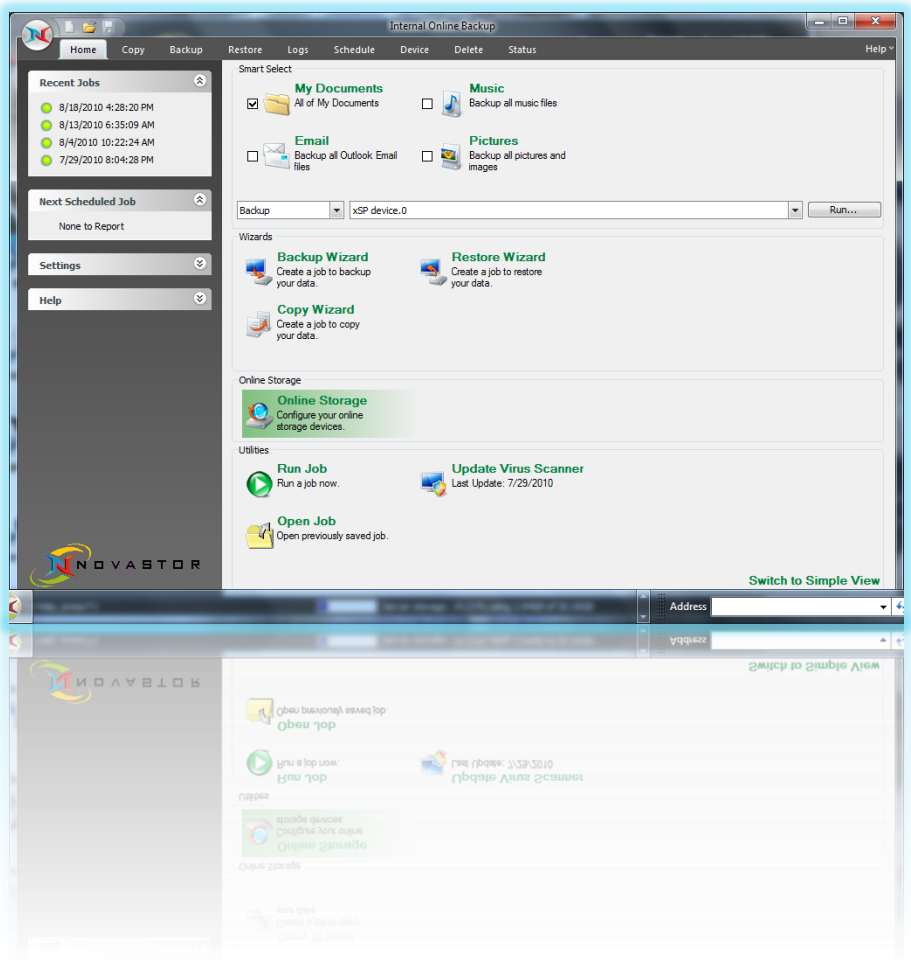
The NovaStor Product Builder module may not always allow you enough time to complete your product design. Therefore, it is important that you update the design every few minutes. In some cases, your session may time you out and may not always save your most recent changes. If this is the case, when you move to a new screen or try an Update, you may be asked to log in again.

Distributing your client application

You will be notified by E-Mail when your client file is ready for download. You must log in to Builder to download the file. When you have received the file, it's a good idea to install the application on a local system and test it before distributing it to clients. If changes must be made, you can reopen the NovaStor Product Builder and edit your file to reflect the changes.

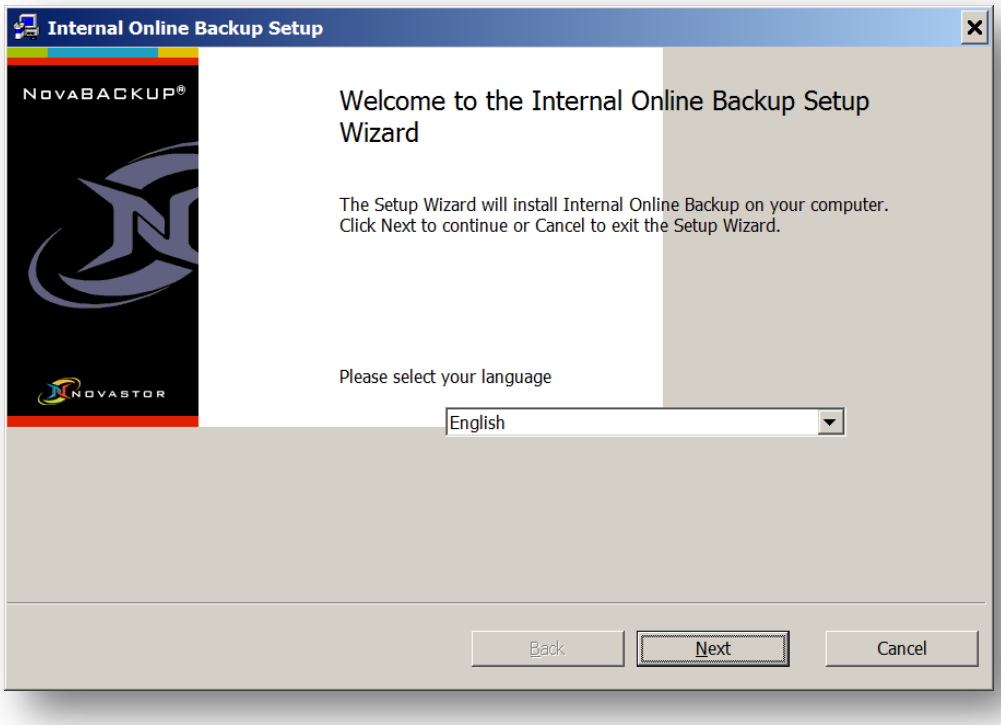
Once your application is ready to distribute, it may be distributed to your customer on optical media, flash drives, or by E-Mail over the Internet.

NovaBACKUP xSP Client Module – Backup Software



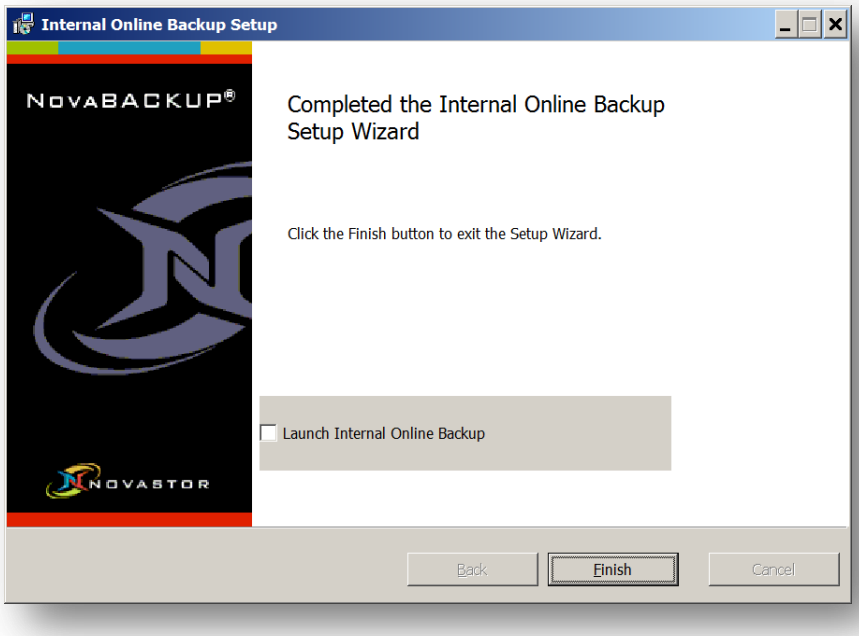
The NovaBACKUP xSP Client Module, which you created using NovaBACKUP Builder, is a full backup application. It is built around a NovaBACKUP core, customized with your settings.

To install the program (or to have your customers install the program), double-click on the application, and follow the screens. The opening screen of the installer uses the title of the application that you specified when you set up the client application, and also includes the graphics you specified during client application setup.


Internal Online Backup Setup
NovaBACKUP®
NOVASTOR
Welcome to the Internal Online Backup Setup Wizard
The Setup Wizard will install Internal Online Backup on your computer. Click Next to continue or Cancel to exit the Setup Wizard.
Please select your language
English
Back
Next
Cancel

Your client can select English, or any of the other languages you made available when you configured the application. Click **Next** (or have your client click **Next**), and the software license is opened. Once your client reads the entire agreement, selecting I **accept the terms in the License Agreement** will make the **Next** button clickable. Your customer will next have the option of a typical install or a Custom install. In most cases, selecting a typical install will provide the most commonly used components. Accepting the agreement and clicking on **Next** will start the application installation.

When the application installer finishes with the installation, a screen similar to this one is displayed:



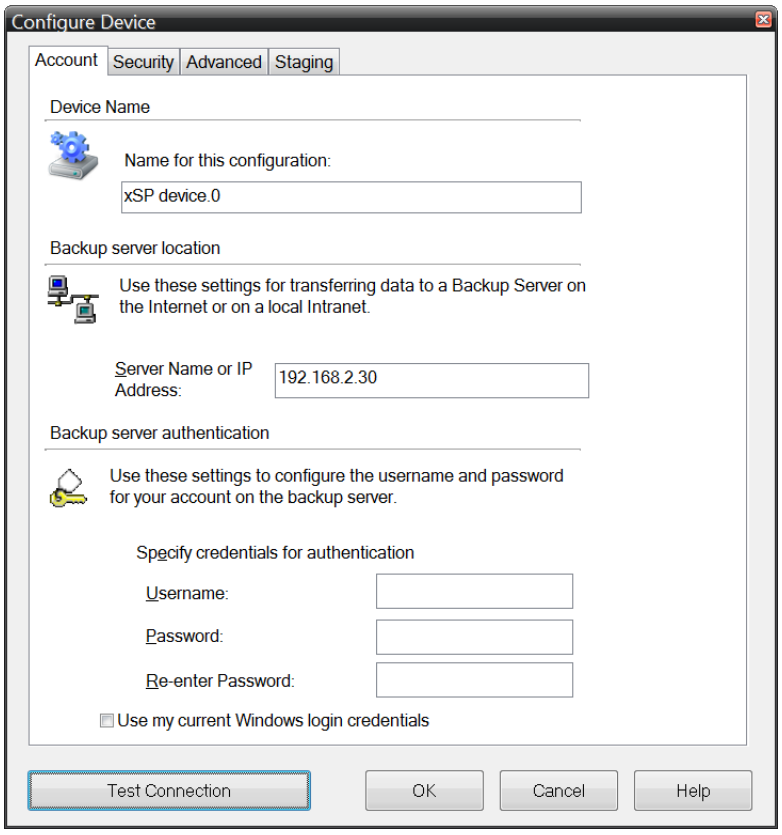
In this case, we've created an application called Internal Online Backup. Clicking on the application name in the gray box on screen, then pressing **Finish** will start the application. If the user doesn't want to run the application yet, not clicking on the box that starts the application will finish the installation and close the installer. The application will be available from within the Start menu.

The first time the application is launched, the online backup device should be configured. The Configure Device screen will contain the IP address settings created when you created the settings in the Product Builder module.

Configure Device

To test the connection, press the **Test Connection** button at the bottom of the Account Menu in the Configure Device box.
Note: In this example, we've used the internal IP address of the server. This address can be used for connecting to the NovaBACKUP xSP server over an internal network.

The Configure Device module looks like this:



To test the connection, username and login information aren't required. If you haven't entered this information in the Configure Device Account tab, you will be asked for it when you test the connection.

The Account tab also provides a default configuration name. This information is used when scheduling online backups – it will be the name of the online device that is selected from within the client application.

Your client may use the login name and password that you define, or may use Windows login credentials. In order to use the login credentials, this option must be selected, and you must enable the use of login credentials when the user account is created.

Enabling the client to use the static IP address of your NovaBACKUP xSP server may be somewhat problematic. This is because there may be firewall or other settings in your router that may refuse the connection request, you may not have your router set to forward requests for port 308 to the NovaBACKUP xSP server, your server may block requests sent to the port, or for other reasons. Conversely, your organization may already have settings allowing external requests, configuring the server to accept and process logins from customers may be a relatively simple task for some IT personnel. Your system administrator should be able to configure your settings to allow remote access from your customers.

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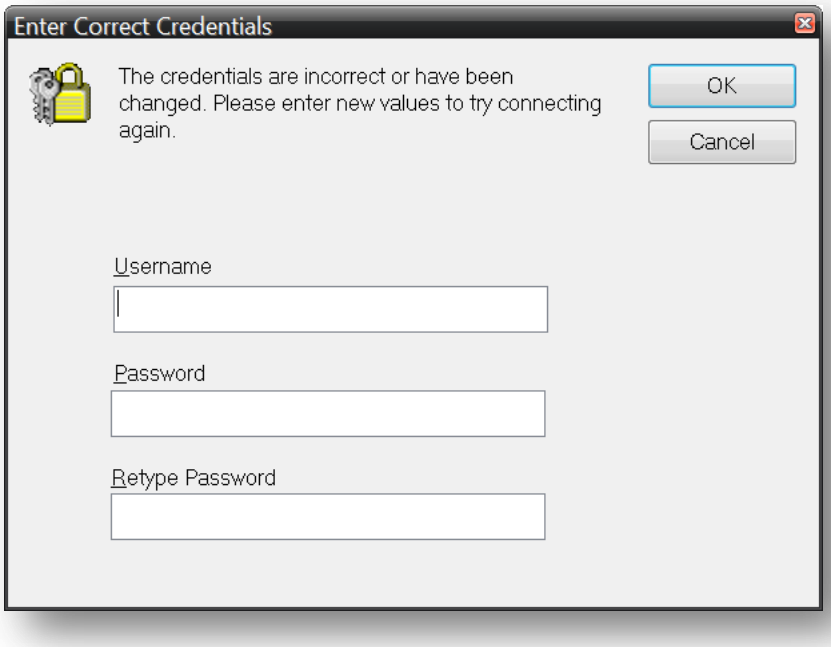
To test the connection to the backup server, press **Test Connection**. If you haven't already entered the name for one of the customers (or if the customer hasn't already entered the name assigned by your company), you will be asked to enter a name:



If a valid username and password are entered (and the password entered a second time), the test will complete successfully. The username and password(s) will be placed in the device configuration screen.

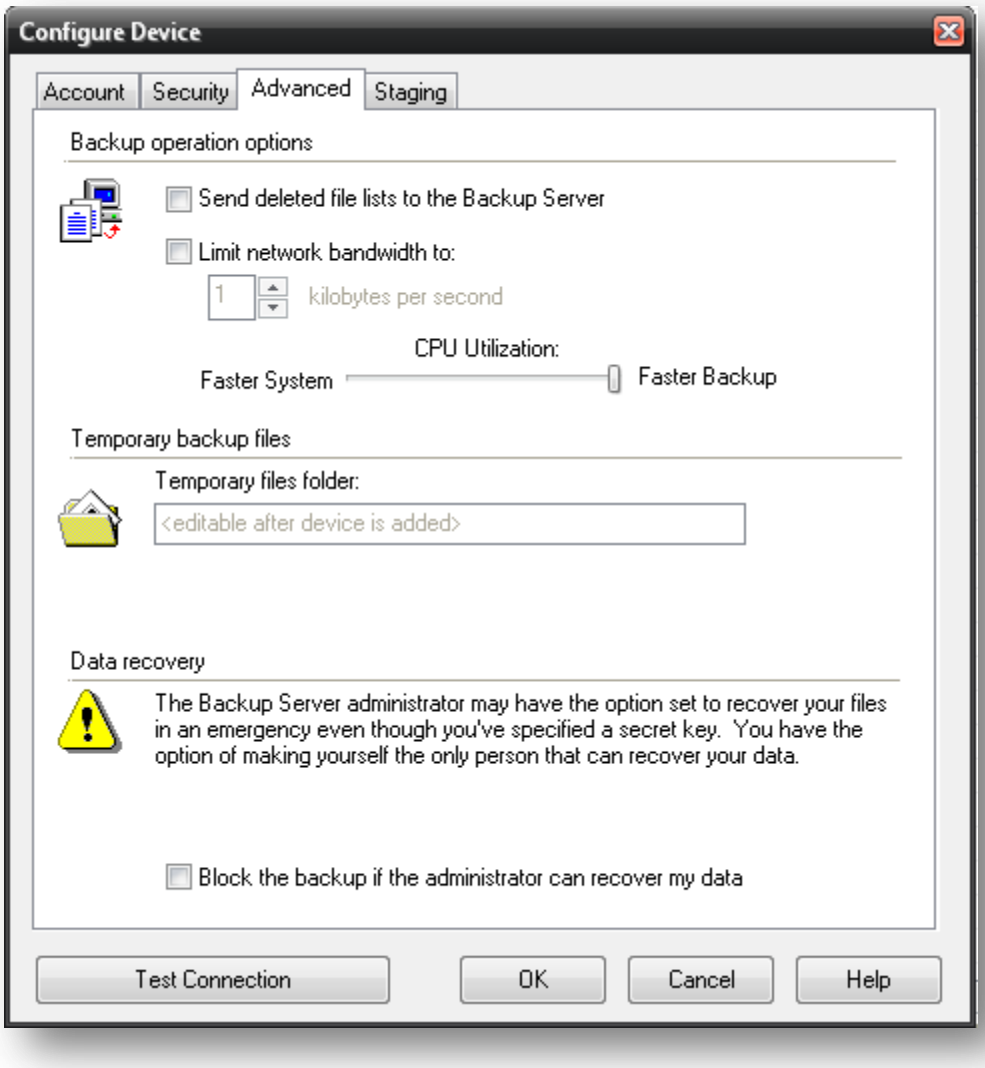
Security

Tip!
It is not necessary to modify the Device Name.

The Security tab allows you to modify or review the encryption settings for the backup data to be sent to the server. NovaBACKUP xSP, and the client, use 128 bit AES encryption. The default encryption keyword is the login password for each user. Using the login password may make it easier for a client to remember the encryption code word, should a problem arise. NovaBACKUP xSP also enables the use of a different encryption key designated by the client. To enable the use of a secret encryption key, the user should click on the Specify my own secret key for encryption radio button. Once this is done, the Secret Key options area on the Security menu opens, and the client is asked to enter and re-enter the encryption code word. NovaBACKUP xSP allows the user to enter an optional hint that should make it easier for the client to remember the encryption code key.

Advanced

The Advanced screen provides options for the backup and data recovery. The client can send a list of deleted files to the Backup Server, by clicking on Send deleted file lists to the Backup Server. The default is to not send these lists.


Configure Device
Account
Security
Advanced
Staging
Backup operation options
Send deleted file lists to the Backup Server
Limit network bandwidth to:
1
kilobytes per second
CPU Utilization:
Faster System
Faster Backup
Temporary backup files
Temporary files folder:
<editable after device is added>
Data recovery
The Backup Server administrator may have the option set to recover your files in an emergency even though you've specified a secret key. You have the option of making yourself the only person that can recover your data.
Block the backup if the administrator can recover my data
Test Connection
OK
Cancel
Help

If network bandwidth is a problem – perhaps the client has a slow connection and doesn't want to slow down the company's available bandwidth by running partial backups, you can select Limit network bandwidth to: and select the maximum bandwidth for communicating with the NovaBACKUP xSP Backup Server.

The NovaBACKUP xSP client is configured to very quickly communicate over the Internet to a Storage Server. When a client connects to the Storage Server, changed files are encrypted, and the encrypted data is sent over the Internet to the Storage Server. The process of encrypting the data takes CPU cycles—the more data to be transmitted to the Storage Server, or the more operations that the client is also running, the more is the likelihood that the client computer will

seem to be working more slowly than it was before the backup was started. In order to reduce the effect of the backup processes on the overall available processing power of the computer, you may want to slide the CPU Utilization slider to the left of Faster Backup. If the slider is all the way to the left, backup will be slowed considerably, while the CPU gives more clock cycles to the processes being run on the client machine. Effectively balancing between faster backup and somewhat reduced performance or slower backup but faster system speed may take a bit of tweaking of the CPU Utilization slider.

The Temporary files folder enables you to specify a folder (directory) where the temporary files are stored before they are sent to the NovaBACKUP xSP Storage Server.

Your Temporary file folders should be located on a drive with at least twice as much free space as data the full backup set contains. So if the client's full backup is 40GB, the Temporary folders should have 80 GB at least free. If not, the FastBIT™ will not work properly. Besides the device temp folder, there is another folder that is used for plug-in data. This can be moved by going to the Home tab/ default settings/ advanced.

Finally, the Data recovery option allows you to decide if the Backup Server Administrator would be allowed to recover your files in an emergency. In order to do this, the Backup Server Administrator would be able to use a master key that would un-encrypt the files for any customer who allows this. It is possible, though highly unlikely, that a Backup Server Administrator would do this without permission. If you do not want the Backup Server Administrator to be able to recover your data, selecting **Block the backup if the administrator can recover my data** will not enable the Backup Server Administrator to use a master code to recover your data.

Staging

Staging is an important option – whether the client has a 10 GB or a 10 TB backup plan. This allows the backup to be made to a device that can be physically transported to the location of the NovaBACKUP xSP Storage Server. Say, for example, that you have a 20 GB backup set. The initial transfer of 20 GB over the Internet could take hours to accomplish, especially if the Internet connection is slow, or the Backup Server Administrator limits the transfer speed for backups. A staging folder, a folder on one of your drives specifically created to hold the initial backup can be copied, in a compressed and encrypted format, onto an external hard drive, or a few DVDs, or possibly onto a 32GB flash drive.

This drive can be shipped (or, if the Storage Server is local, driven) to the Storage Server. The initial backup set can then be transferred onto the Storage Server. The devices or disks used to transfer the staged data can be returned to the client after the staged data is moved onto the Storage Server.

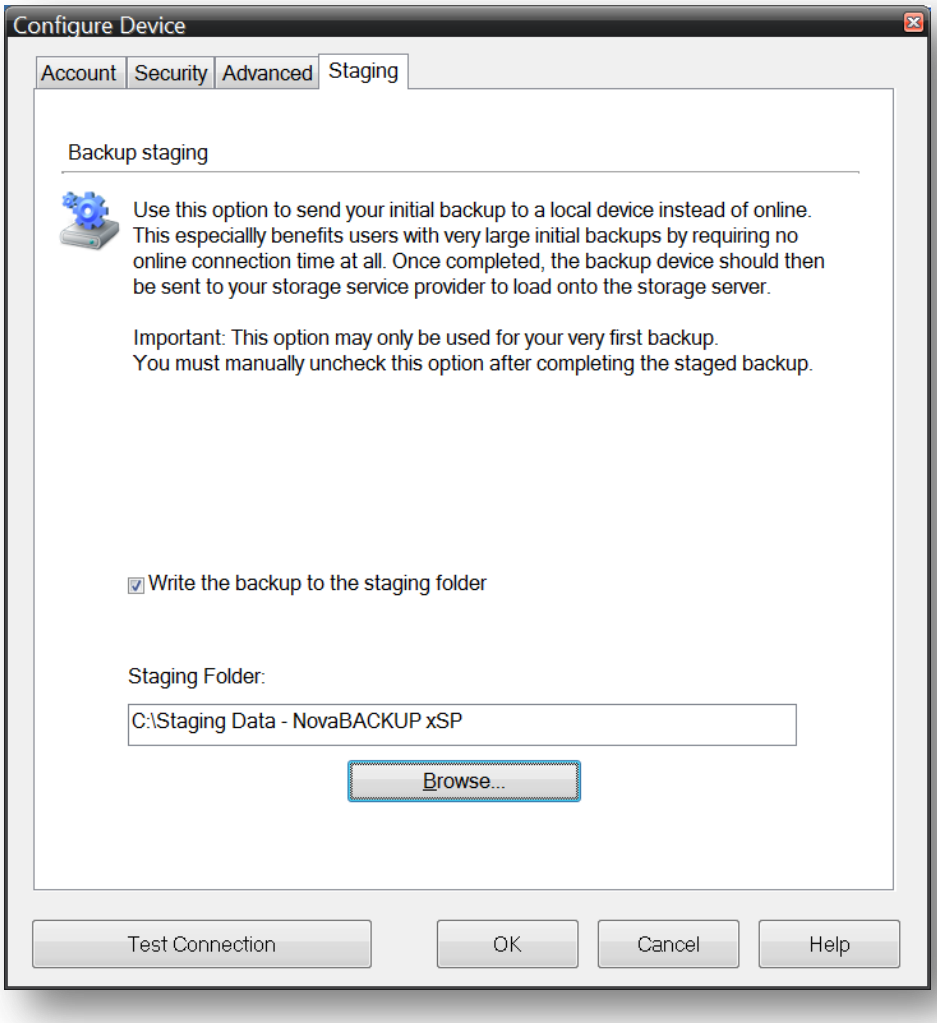
For a backup client with hundreds of gigabytes of data – or more – the amount of time saved by

staging data onto a transportable hard drive could be days. Staging data is an excellent option.

To enable staging, select the box to the left of **Write the backup to the staging folder**, then browse to the drive where the staging file will be written.

Note that, once the staged data is written onto the Storage Server, subsequent backups will contain the changes to the data that occurred after the last backup. While it may have taken weeks or months to accumulate your staging data, backups of this incremental data could take minutes to complete.

This screen shows staging set to occur on initial backup to a staging folder created for this task:


Configure Device
Account
Security
Advanced
Staging
Backup staging
Use this option to send your initial backup to a local device instead of online. This especiallly benefits users with very large initial backups by requiring no online connection time at all. Once completed, the backup device should then be sent to your storage service provider to load onto the storage server.
Important: This option may only be used for your very first backup.
You must manually uncheck this option after completing the staged backup.
Write the backup to the staging folder
Staging Folder:
C:\Staging Data - NovaBACKUP xSP
Browse...
Test Connection
OK
Cancel
Help

When you have made all the appropriate settings on your client application, press **OK**, and the Configure Device box will close, the client device will be added, and you will be returned to the main backup client application.

When you have made all the appropriate settings on your client application, press **OK**, and the

Configure Device box will close, the client device will be added, and you will be returned to the main backup client application.

The next step is to import the stage backup to your server once it has finished backing up. You may do this by transporting the physical drive the data is on to your server, or using an FTP server to stream the large amount of data.

Importing the Stage Backup to the Server

After your backup is done to the staging folder, configure the xSP device to stop backup to the staging folder. The staging folder is ONLY to be used for the first initial backup of a user, do not backup more than once to the staging folder.

The user must not do a backup until the staged backup is imported to the backup server, so disable any schedules that may be setup for the user.

1) Get the user's staged data on the storage server, or accessible to the storage server via UNC path.

2) From the root installation folder of your Storage Server, launch the BackupImportUtil.exe

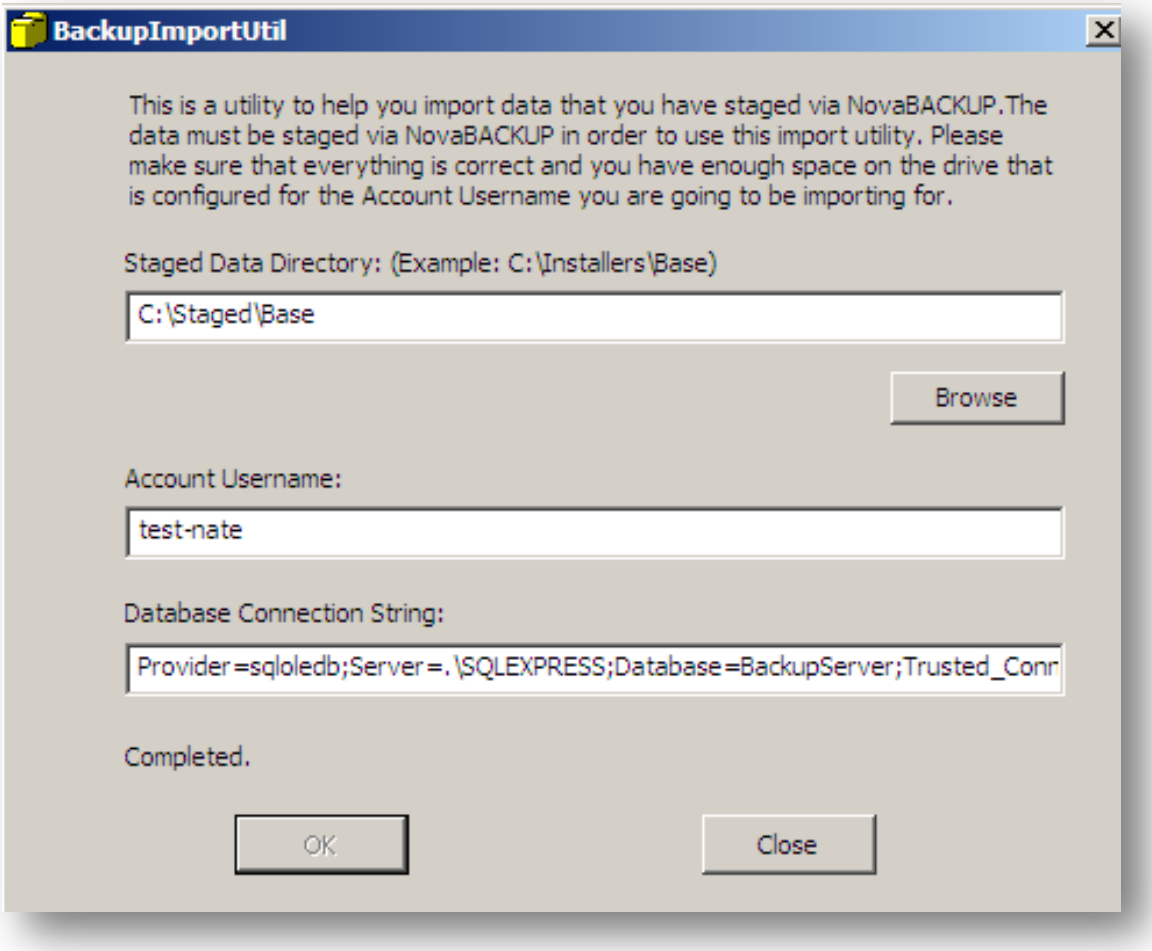
You may use the tip below to run the import via command line instead of a GUI if you prefer.

The Command line has the following arguments and is done in the Storage Server's installation directory. BackupServer.exe -stagedDataMigration –s *Staged Directory* -u *UserName* -c *SQL Connection String*

An example of a command line for this would be the following:

BackupServer.exe –stagedDataMigration –s "C:\Staged\Base" –u test-nate –c "Provider=sqloledb;Server=.\SQLEXPRESS;Database-BackupServer;Trusted_Connection=no;user id=sa;password=SQLpwd1;"

Here is a screen capture of the Import Utility GUI:


BackupImportUtil
This is a utility to help you import data that you have staged via NovaBACKUP.The data must be staged via NovaBACKUP in order to use this import utility. Please make sure that everything is correct and you have enough space on the drive that is configured for the Account Username you are going to be importing for.
Staged Data Directory: (Example: C:\Installers\Base)
C:\Staged\Base
Browse
Account Username:
test-nate
Database Connection String:
Provider=sqloledb;Server=.\SQLEXPRESS;Database=BackupServer;Trusted_Conn
Completed.
OK
Close

3) **There is no 'progress' indicator** when the import is done, if you check the windows task manager you will see multiple copies of BackupServer.exe running. One of them will close when the import is done.

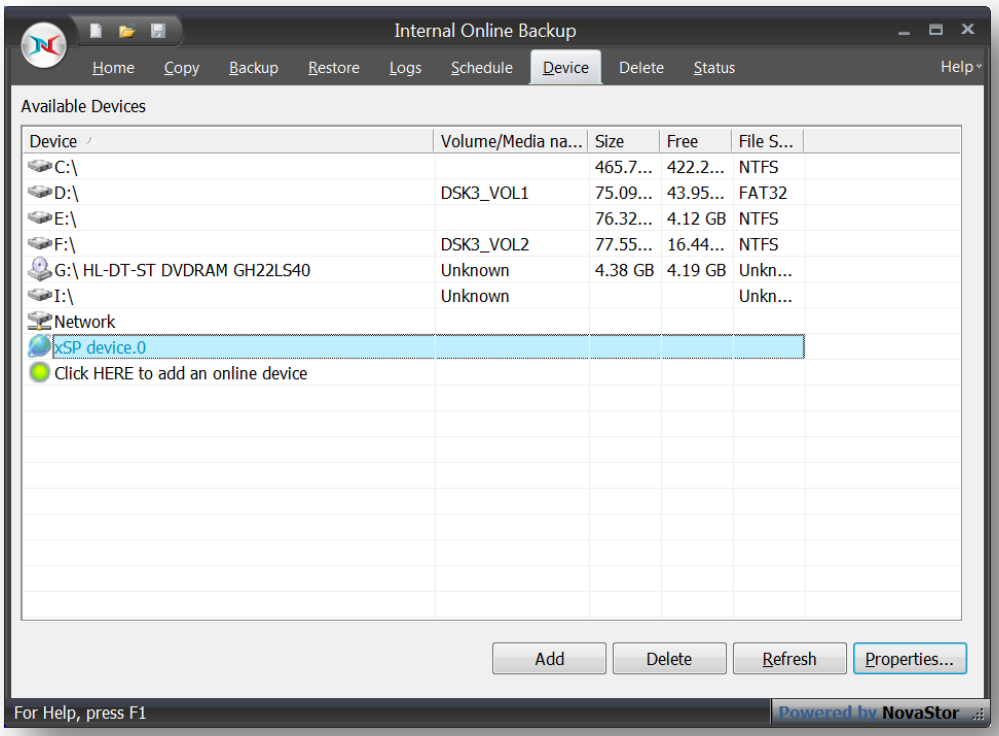
4) After the import is done, go into the configuration manager and double click the user and press the Ok button so it will read the Disk Usage correctly.

5) At this point the client software can do backups and restores from storage server. To be sure the import worked correctly you can connect to the user account using the NovaBACKUP software and go to the restore tab to make sure the files show up.

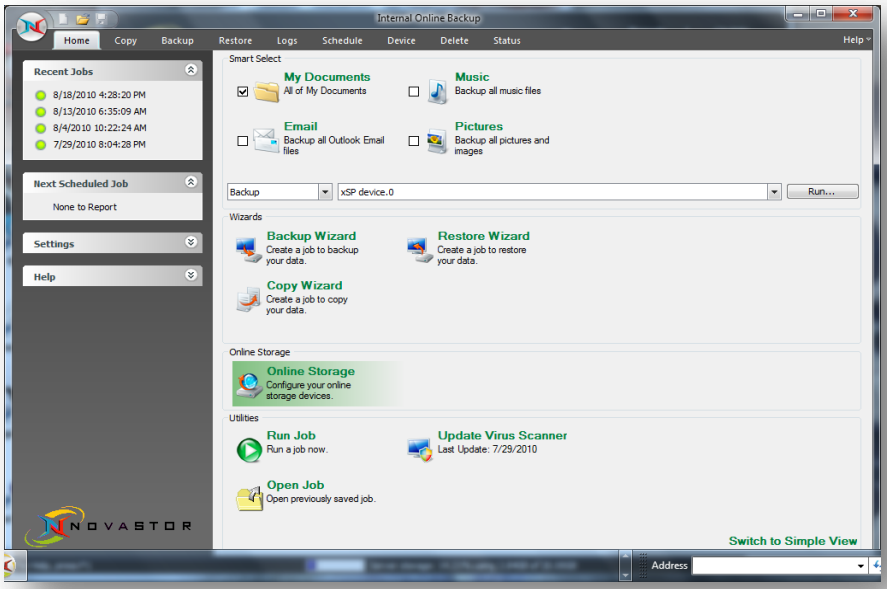
How to change the online device settings

If you close the Configure Device box before all settings have been created, or if you want to change some of the settings of the device, or if you just want to review the Configure Device settings, it is easy to get back into the configuration box. To do this, select the Device tab, highlight

the device (this will usually be xSP device.0), and click **Properties**. The **Internal Online Backup** screen will open. This screen also enables setup of external backup targets.



You may also access the **Configure Device** screen by choosing Online Storage on the Home screen, as shown with the green background (meaning that it will be selected) is shown on the next page.

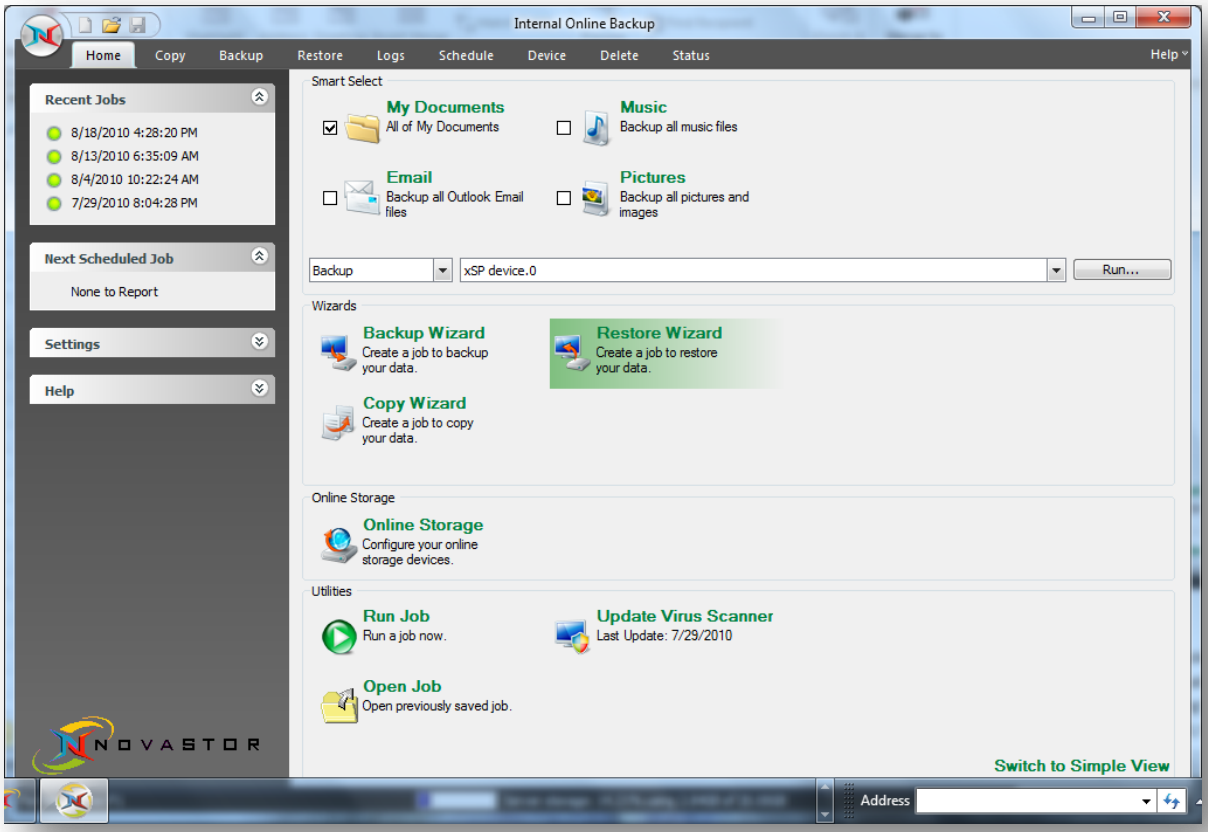


When Online Storage is selected, you will have the choice of defining a new online storage device or reviewing the settings of your current online storage device.

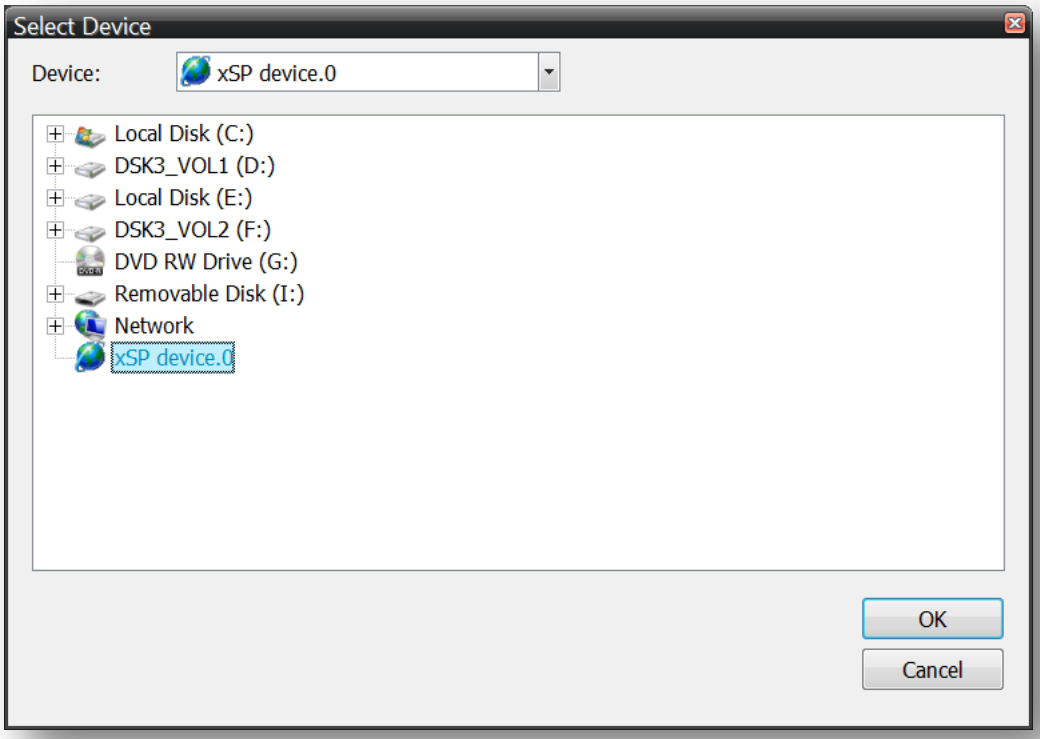
Running an online backup

The backup client application features very useful Help files, and the program is already very intuitive to use. Most questions about using and running the client application can be answered by the help files.

For the purpose of demonstrating an easy first backup task, we'll be backing up My Documents to the xSP server. In this example, we've clicked the My Documents and the Music files on the Home screen. When selected, the backup client will copy the contents of the user's Document directory, and will also copy the default Music directory.



Once the backup jobs are selected, the Job Type and destination must be selected. When a first backup is being created, the only option available is Backup. After a backup has been made, the client will also have the option of restoring a backup. When you click select a destination, a screen opens, showing the local drives, the configured online storage device, and the Network. When xSP device.0 is selected, the screen will show all the storage devices and a link to the Network. The online backup device name appears at the top of the screen, in the Device box.



Once the type of job and the backup device are selected, the client is returned to the home screen. To start the backup, press **Run**, or click on **Run Job**.

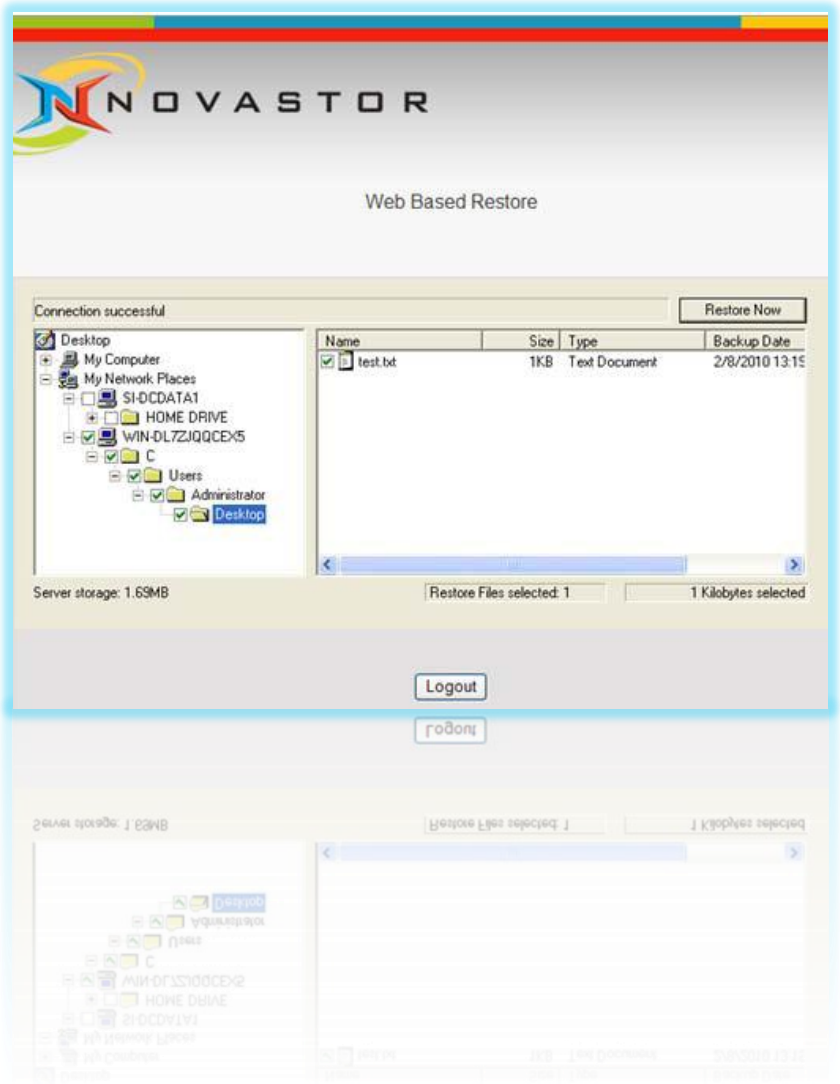
A Backup will start, and a progress screen will begin to track the progress.

A word on the simple view mode

The client backup software is configured, by default, to run in the Advanced View User Interface. This interface gives the client more choices, and more control, over the selection of files and the entire process. However, there is also a more basic user interface, the Simple View.

To switch between views, just click the Switch button at the bottom of the screen to go from one mode to the other.

Web Based Restore



Web Based Restore is a fully customizable utility that allows a user to restore backed up files over the Internet without requiring NovaBACKUP xSP Client software to do the restore.

In a normal restore, the customer would have to be running the client software, and restore to the machine that was backed up. Web based restore allows a customer to access a URL of the service provider's choosing, input the username and password, and gain access to a restore only interface. An example of a website address that can be used for Web Based Restore is:

http://backup_provider_IP_Address/webrestore.

Once logged in to the web restore server, the default interface looks something like this:

Installing Web Based Restore

- To install Web Based Restore, you must first download the Web Based Restore files. These files are accessible from: http://backupfilestore.NovaStor.com/Downloads/Utilities/wbr.zip
- Create a file on the root of the desired drive, calling it WBR. UnZIP the wbr.zip files to the WBR file you just created.
- In IIS, create a virtual directory. For information on how to create a virtual directory in IIS, the following links provide useful information:
    - IIS6: http://www.microsoft.com/technet/prodtechnol/WindowsServer2003/Library/IIS/5adfce1-030d-997c-bdbfa08ea459.mspx?mfr=true
    - IIS7: http://technet.microsoft.com/en-us/library/cc771804(WS.10).aspx

- When prompted for a physical location of the folder, point to the previously created WBR folder.
- Next, go to the directory to which the files were unzipped (WBR) and edit the index.htm file using notepad. Find the entry that says: var server = “192.168.0.129”.
- Change the IP address (192.168.0.129) to the address of the Storage Server. This address is the same that the customers have configured in their client software, or that you

configured, using NovaBACKUP xSP Product Builder, to create the specifications for their client software.
- Save, close and test the new directory.

Customer Use of Web Based Restore

When the customer/user first connects to web based restore (at the address you selected above), the server will prompt the user to download and install a small file.

Once the file is installed, the customer will be able to run the web restore module and restore files for the account into which he or she is logged in. The user is required to log in to be able to use the web restore module.

APPENDIX

NovaBACKUP xSP Remote Settings:

The server currently maintains a collection of settings the admin has added (if any) server-side as a 'remote setting' for the client to pick up. This is accomplished by sending the client a file called ClientSettings.ini when the client requests it. The convention has been to include a [settings] section with settings to follow using the typical .ini file format:

<label> = <value>

Start NovaBACKUP Storage Server Configuration Manager, go to Accounts tab and click on a Group Policy Settings. Select Everyone Group and click on Properties, then go to Settings Tab and Click on NEW.

==========
DEVICE LEVEL (effects current device settings)
==========

Values = 0/1	Values = variable
"SpecifyCredentials"	"ServerPort"
"PurgeOldFiles"	"NumRetries"
"SaveFullBackup"	"RetryWaitSeconds"
"UsePatching"	"PurgeFileLength"
"WaitOnLockedFiles"	"LowDiskSize"
"CopyFileToWork"	"PatchSpeed"
"SpecifySecretKey"	"CompressionSpeed"
"SendDeletedFiles"	"MaxMBCopy"
"SecretBlockBackup"	"MaxPatchWindow"
"TLS"	"MinPatchWindow"
"ESW" (means ForceDESEncryption)	"EncryptionType"
"ForceUsePasswordForKey"	"BandwidthValue"
"ForceSetSecretKey"	"ThrottleValue"
"BandwidthLimited"	

==========
SCRIPT LEVEL (affects [logs] section in xxdef.ini)
==========

Values = 0/1

"PrintLog" (Maps to: same)
"MailSendAfterBackup" (Maps to: "EmailLog")

Values = variable

"LogOption" (Maps to: "LogNotifyOpt")
"PrintOption" (Maps to: "LogWriteOpt")

==========
SCRIPT LEVEL (effects [email] section in xxdef.ini)
==========

Values = 0/1

"MailSMTPAuth" (Maps to: "SMTPAuth")
“UseSSL” (Maps to: same)

Values = variable

"MailServer" (Maps to: "SMTPHost")
"MailUsername" (Maps to: "EmailUserName")
"MailPassword" (Maps to: "EmailPassword")
"MailFrom" (Maps to: "EmailSender")
"MailSendTo" (Maps to: "EmailSendTo")
"MailSMTPPort" (Maps to: "SMTPPort")
"MailSubject" (Maps to: "EmailSubject")
"MailTimeout" (Maps to: "Timeout")
"MailRetries" (Maps to: "Retries")
"MailCCTo" (Maps to: "EmailSendCC")
"MailSenderName" (Maps to: "EmailSenderName")

Commonly used Terms

.Apf file: Every backup account will have a cache.apf file, which is a special file that acts as a connector between the backupserver SQL database, and the configuration manager. It stores all sorts of information used to retrieve account information from the database during backups and restore.

Backup Server Service: This is the background windows service that is installed with your Storage Server. This service turns the backup server on and off.

Cache: We use this term to describe folders that store temporary files. Temp folders store data required for FastBIT™, restore jobs, and file synchronicity to work.

Client Service: This is the main background windows service that runs the client, and enables the scheduler to run while a client is logged off their machine.

Data directory: This is another name for the folder where an account's data is actually getting backed up to.

FastBIT™: This is the patching process behind our speedy backup service. The patching process involves the comparison of two different versions of the same file and extracting the differences between the files. When the differences are extracted from the two files, they are saved into a new file and compressed into what is known as a Patch. The patch file is often 85% to 99.9% smaller than the file which the patch was extracted from originally.

In order to perform a FastBIT backup, the software has to backup the files 3 times: the first backup is a full, the next backup will perform an incremental, and the third performs the first FastBIT backup.

Stage Backup: This is another word for a "Seed Backup". The concept is to store a large initial customer's data on a local device such as an external hard drive, and then have the ability to stream or transport the bulk of that data to your Storage Server. This can save hours, days or even weeks of trying to move a large amount of data over the internet for the customer's first full backup.

Roll-up: This is a scheduled cleaning process for your Storage Server that clears out duplicate data and outdated files from your backup accounts. This process works against the Data directories to reduce storage, and erase files which the client has marked for deletion from their account.

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Contacting Technical Support

Whether you contact us via the phone or via the Support Request Form, we will promptly log your support request and quickly assign your issue to the appropriate support engineer. The following sections detail the life cycle of a support request and explain best practices, our processes and your options as the issue progresses. Here are general recommendations for contacting us by phone, e-mail and website.

U.S. Hours of operation:
MON - FRI
7am – 5pm PST.
1-805-579-6700
Email: support@novastor.com

Knowledge base:
http://www.novastor.com/support/knowledgebase/

Our support engineers or help-desk operators will ask you a number of standard questions when troubleshooting your issue. Please have the below listed information before contacting NovaStor Support. We need this information to diagnose problems and quickly log your request.

Contact Information: Name, Company name, Customer ID, Ticket ID (if you sent a prior request)

Telephone, fax, e-mail or other contact details where you can be contacted if you have not provided this information earlier or you are contacting NovaStor first time.

Computing Environment Information:

- System specifications and operating system
- Product name and version
- Build number
- System configuration

Please describe your problem in an accurate and detailed manner so that our support Engineers can assist you in the shortest possible time.